University of Albert

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Oct 31/60.

* Indicates Serving Member

Exec. Committee.

Dean.

Secretary.

Div. A – 2 years } alternate. one.
Div. B – 4 years

Div. C – 2 years } alternate. one.
Div. C – 4 years.

Original Member.	Alternates.	Appointed	term	retired
Prof. Ryan (A)		Nov/58	2	Oct/60
* 306 Hanson (B) *		✓	4	
Brodie (C)		✓	2	Oct/60
* 396 Wyman (C) *		✓	4	
	Prof. Greene (A&B)	✓	1 yr.	Oct/59
	Newbound (C)	✓	1 yr.	Oct/5
	Newbound (C)	Oct 5/59	1 yr.	Oct/60
	Wonders (A&B)	✓	✓	Oct/60
	409 * C.H. Moore (A&B) *	Oct/60	✓	
	2512 * W.E. Harris *	Oct 60	✓	
* 2319 A.T. Elder. *		Oct/60	4 yrs.	
* 274 W.C. Wonders. *		Oct/60	✓	

THE REPORT OF THE NOMINATING COMMITTEE ON THE FUNCTIONS, PERSONNEL AND TERM OF SERVICE OF THE EXECUTIVE COMMITTEE OF THE FACULTY OF ARTS AND SCIENCE

I. Terms of Appointment

The Executive Committee of the Council of the Faculty of Arts and Science shall consist of the Dean, the Secretary of the Faculty (ex officio), and four elected members, one from Division A, one from Division B and two from Division C. In addition there shall be two elected alternate members, one from Divisions A and B and one from Division C.

On initial appointment, two of the elected regular members of the Executive Committee (one from Divisions A and B and one from Division C) shall serve for two years and the remaining two for four years. The Selection of those retiring after two years will be made by lot and retiring members may be re-appointed at the discretion of Council. All future appointments to the Executive Committee shall be for a term of four years. Appointments shall run from 1st September.

If a regularly elected member of the Executive Committee shall retire before the expiration of his term, the remaining portion of his term shall be filled by a new appointee. Such vacancies shall be filled by the Dean on the recommendation of the remaining members of the Executive Committee, but vacancies caused by the retirement of members at the expiration of their term shall be the concern of a nominating committee selected by the Dean but making its recommendations to Council.

Alternate members shall be elected for a term of one year, beginning 1st September, in the manner of the regular members save that, in the years when no Nominating Committee is to be appointed, the Executive Committee shall make recommendations to Council.

II. Terms of Reference.

A. Preparation of Routine Material for Council.

1. Calendar Changes.

The Executive Committee shall consider all course changes. It shall review the reports of the Committees on Honors and Patterns. It shall have the power to call in for consultation members of departments concerned with such matters and to make recommendations to Council.

2. Nominations.

   The Executive Committee shall make recommendations to Council for the filling of vacancies in the regular committees of the Faculty of Arts and Science and also for such new committees (ad hoc or permanent) as Council may authorize.

3. Council Agenda.

   The Executive Committee shall review the agenda for meetings of Council.

B. Action on Authority Delegated by Council.

1. The Executive Committee may act for Council in certain special cases, when Council so directs.
2. The Executive Committee, for the Faculty Council shall approve all special registrations.
3. The Executive Committee, for the Faculty Council, shall approve the list of delayed graduands (receiving recommendations from the Honors Committee and the Revisions Committee) for General Faculty Council.
4. The Executive Committee shall hear all student petitions and make recommendations to the Faculty Council.

C. Unexpected Developments.

1. When necessary, the Executive Committee shall act for Council between Council meetings, subject to subsequent ratification by Council.
2. The Executive Committee shall advise the Dean on all matters when requested.

D. General

1. The Executive Council, through the Secretary of the Faculty, shall circulate to all members of Council, a record of decisions taken and recommendations made. These will appear in the material circulated before the next meeting of Council.

III. Nominations

For the initial appointments to the Executive Committee, the Nomination Committee recommends:

A. Regular Members: Professor Ryan (Division A)
Professor Hanson (Division B)
Professor Brodie (Division C)
Professor Wyman (Division C)

B. Alternate Members: Professor Greene (Divisions A and B)
Professor Newbound (Division C).

Respectfully submitted,

W.G. Hardy, Chairman.
E.S. Keeping,
R.B. Miller.

D.E. Smith, Dean (ex officio)
F.D. Blackley, Faculty Secretary (ex officio).

This report and its recommendations was adopted at the meeting of the Council of the Faculty of Arts and Science, held on November 3, 1958.

The minutes of the Executive Committee of the Faculty of Arts and Science, the first meeting of which was held on 21st November, 1958 at 3:30 p.m. in the office of the Dean. Present were: Dean Smith in the Chair; Professor Ryan, Dr. Greene, Dr. Brodie, Dr. Newbound and Dr. Blackley (Faculty Secretary).

I. Report of the Committee on Honours.

The Dean pointed out that the new General statement on Honours was designed to emphasize a four-year integrated program. Dr. Greene asked if there was anything mandatory about a science in the first year of an Honours program. To this, the answer was that an Honors student must take at least three courses outside the division in which his Honours subject belongs in his first three years, but that these three subjects need not include a science. It was felt wise, however, for first year Honours students to take a science course since, if they were transferred to the General program, adjustment then would be easier.

The question of the tightness of science Honours programs was discussed, in particular of the Mathematics program. This was designed largely for students going on to graduate work and might be too restricted for those who had teaching in secondary schools as their goal. It was felt that students should be made aware of this either in the supplementary material for students (e.g. the Students Advisory Pamphlets) or in the calendar, or pointed out to them by the Department. This brought up the question of the function of a calendar and the feeling was that Departments themselves should be responsible for seeing that this information was known. Dr. Newbound pointed out that it would be possible to get the courses most useful for high school teaching in the options of the Mathematics pattern, but that it would be wise for students to understand this from the beginning.

The Chemistry Research Seminar (designated Chemistry 151) was considered in the light of a report made by Dr. Brodie on practices in the Faculty of Agriculture where all departments give them and graduate students take at least one or two. Dr. Brodie felt that such a seminar was a valuable part of a student's program since this was one of the few places where some training was given in conducting a discussion, preparing a paper, etc. The Agriculture seminars were formal, with papers that were given scored and the discussion assessed.

The Executive Committee felt that if the Chemistry Department wished a real seminar (implied in giving the Seminar a course number) marks should be assigned to work done, etc. Such a course would increase the load in third and fourth years from ten to eleven courses. Dr. Newbound was instructed to contact the Chemistry Department with the result that the course number was dropped and the seminar, although compulsory, remained informal.

The request of the Department of Geology to drop Geology 59 (Geomorphology and Glacial Geology) from the prescription for fourth year Honours Geology, came as a result of requests to adjust the program for individual students who did not need it. The Honours Committee had agreed, on the understanding that the program would be changed in this way.

Slight amendments were suggested for the History program and Dr. Blackley was requested to and did obtain the approval for these from the Department of History.

The proposed revised programs for Honours Mathematics and Honours in Applied Mathematics were approved without alteration.

The proposed program for the Department of Philosophy and Psychology was approved with some alteration arising from an error in the original submission.

Dr. Greene gave an account of discussions on the proposed program in Slavonic and Soviet Studies. It was decided in the Interdepartmental Committee that a new Honours program was unnecessary and that what was desired could be accomplished within the existing Honours programs in Modern Languages, History, Economics and Political Science, by the proper use of options, special subjects etc. Such programs would avoid the pitfalls inherent in area studies. It was felt that the courses necessary for students should not be outlined in the calendar although ten were specified in the minutes of the Committee on Honours. In practice, things should be left somewhat flexible until the departments concerned have a chance to see it in operation.

Dr. Brodie noted that the course in Honours Conservation Biology had ceased to be. Students takirg it could either finish the program or transfer to Honours Botany or Zoology.

The proposed Honours program of the Department of Zoology was accepted without alteration.

II. Report of the Committee on Patterns.

Dr. Greene, the Chairman of the Patterns Committee, stated that the changes proposed in the report were perfectly consistent with the general spirit of the patterns system. Only the options in the third year of the Mathematics pattern were controversial.

Here the old "open" option had been absorbed in "three options, at least one from Division C". There was a precendent established for such an action in the third year of the Entomology pattern, approved by Council in the 1957-58 session.

The Executive Committee approved the point in question with the proviso that the meaning of the word option be fully defined and placed in the calendar. It was decided that the Executive Committee should recommend the following definition o an "option": "An option should be construed as a course freely chosen by the student provided that he has any necessary prerequisites or co-requisites; that "an approved option" be an option approved by the department directing the program of the student concerned."

It was further recommdnded that this statement be placed amongst the General Course Regulations and the Regulations regarding "Degrees with Honours in the Faculty of Arts and Science".

The Executive Committee then considered the suggested new regulations for the B.A. and the B.Sc. after the B.Ed. proposed by the Patterns Committee. These were that the following principals should be borne in mind:

A. Where feasible, a senior course may be substituted for a junior course required in the pattern, e.g. a senior History for History 10.

B. Junior courses be counted towards the six courses required, provided that the total number of courses does not exceed ten of the combined total of 19 Arts courses.

C. That otherwise the number of courses be increased to meet the pattern requirements.

There was some discussion on the number ten mentioned in "B". It was pointed out by the Dean and the Secretary that in most cases students would have few junior courses carrying Arts and Science credits in Education programs and that a more suitable number might be 6 or 7.

Dr. Brodie remarked that Biology 41 should not really be counted as a senior course, since it was no more difficult than Botany or Zoology 1. Dr. Newbound expressed the same opinion of Physics 41. If these two courses became junior courses, the problem of the six senior courses for B.A. after B.Ed. courses was intensified.

No decisions were reached. The proposals of the Patterns Committee on the B.A. and the B.Sc. after the B.Ed. were tabled.

III. Proposed New Combined Course Leading to the Degrees of B.A. and LL.B. ✓

The Dean introduced the proposed new combined course, stating that the existing two pre-law years were considered unsatisfactory both by himself and by Dean Bowker. Negotiations with the Faculty of Law were still in progress but the proposals before the Committee were the maximum possibilities. Any of the proposed routes would give the student some concentration and, if he failed to enter Law, would allow adjustment to a pattern with the minimum difficulty. The present route gave no concentration, and thus produced a B.A. program quite different from present patterns.

Dr. Blackley noted that the English Department was not too happy about the proposed restriction on those following the "English route" to two senior ENglish courses chosen from English 51, 52, 53, 59, 63, 64. Dean Bowker, however, had a marked preference for certain courses.

The Committee recommended that the words "normally chosen from" be added to make possible a greater flexibility in this proposed route for special cases.

The proposal to allow promotion to first-year Law on the basis of required seconds and "an average deemed to be suitable by the Faculty of Law" was rejected by the Committee who favoured "an average of at least 60%".

IV. Special Case (Mr. Brian Harry Gibson)

Mr. Gibson lacks for graduation in the Zoology pattern one senior Zoology course. He failed Zoology 53 four times, taking the course twice and writing each time both the regular and supplemental examinations. Since he now lives in Kenora Ontario, he requests permission to repeat Zoology 53 on an extramural basis (see page 65 of the 1957-58 composite calendar).

There was some initial opposition to this request since the calendar revision seemed to refer to the first repetition of the course; but the Committee finally recommended that Mr. Gibson, the consent of the Zoology Department having been obtained, take Zoology 53 a third time extramurally. He was to be advised that if his work was unsatisfactory he could be required to with draw at any time and was urged to investigate the possibility of taking an intra-mural course at a recognized university that could be accepted as an equivalent. The intramural course would not be allowed until the session 1959-60.

V. Course Changes and New Courses.

There was considerable discussion on the proposal of the History Department to designate its two-year Special Subject (Honours program) as History 100A and History 100B. It was felt that this course, despite its two-year nature, should beacalled History 100. For a precedent English 112 was cited. Dr. Blackley was delegated to get in touch with the History Department who agreed to the change and submitted a revised description of the course.

The Dean explained the proposal of the Department of Philosophy and Psychology to offer Sociology 64, a course in Cultural Anthropology. This would begiven by a Sociologist but with a background in anthropology.

Some doubts were raised about the Sociology offerings outlined for the future. Were they too binding on future instructors? The Dean promised to inquire and was able to report that Sociology 64 had been worked out with a Carelton College anthropologist and that the other proposed courses are realistic ones. Courses changed proposed simply make the existing course description closer to what is actually taught at this time.

A question was raised on the advisability of teaching Limnology 112, an advanced course in fresh water biology, in winter. Was this not a course to be taken during the summer? Dr. Brodie agreed to investigate and reported that the course was specially designed and had a suitable aquarium to make winter study possible.

The Committee queried the proposed sub-title of Classics 52 (History of Ancient Greece), "The Influence of the Greek Genius on the Western World", since this sub-title did not agree with the course description. Professor Ryan was delegated to investigate this matter and reported to the Committee that Classics had agreed to drop the sub-title.

The Committee debated the advisability of demanding second class standing as a prerequisite for Geology 101 and 102. The Committee recommended, and Geology agreed, to substitute in each case "the consent of the instructor".

The Committee noted that the proposed courses Spanish 51 and Spanish 55, if approved, would alternate.

The Committee recommended that German 1c, a proposed course in reading German for Ph.D. students with a German language requirement, be numbered 100. Dr. Greene agreed.

The Committee suggested that the sub-headings A, B, etc. in the proposed new course descriptions of Russian 40A, Russian 51 and Russian 40b be removed. Dr. Greene agreed.

The meeting adjourned at 6:45 p.m.

The adjourned first meeting of the Executive Committee was resumed at 11:30 a.m. in the Office of the Dean on Saturday, 22nd November, 1958.

Various members of the Committee reported on discussions held with departments as a result of the previous session; these reports have been incorporated in the minutes of the previous meeting under appropriate items.

Dr. Greene presented the case for Ukrainian 1. For Slavonic specialists in Honours programs such a course would fill the need for a second Slavonic language and as such was offered at several universities. Up until the 18th century, Ukrainian was the main literary Slavonic language. Even now, with its central position between the eastern and southern and western Slavonic languages, there was a case to be made for Ukrainina as the normal second Slavonic language.

In the patterns, there was also a place for this language, although it would not be wise to allow both Russian and Ukrainian in a student's program. Since an increasing number of people are taking their B.A. degree before proceeding to the Faculty of Education, Ukrainian 1 might be a very suitable course for some of these.

Dr. Greene noted that a large proportion of Slavonic scientific literature is in Ukrainian and that there might be a need for a scientific Ukrainian course. He agreed, however, that this time had not yet arrived. He.felt that there was enough Ukrainian literature for four courses of Ukrainian. He admitted that much of the pressure for Ukrainian came from the older generation. The younger Ukraininansdo not show the same keenness.

Dr. Starchuk, in his language courses, has set up a good tradition of work. Twice as much is done in Russian 1 as is done at U.B.C. We have five hours of work whereas at U.B.C., with an enrollment of 40, this has been cut back to four with the possibility of a further reduction to three. Classes here are small and the problem will be to maintain the standard already set up if they get larger.

The Executive Committee endorsed the proposal and trusted that, with the safeguards as outlined, there would be little debate in Faculty Council.

Dr. Brodie informed the Committee that Botany 53 had dropped the fungae previously considered in it, and the fungae would be picked up in an expanded and somewhat modified Botany 54.

On the recommendation of the Committee (Dr. Brodie had consulted his department on this), Botany 5 was dropped as one of the stated prerequisites for Botany 50, 51, 52, and 53, leaving "Botany 1a, 1b or the consent of the instructor". Botany 5 could still be accepted under this formula. Dr. Brodie thought the course was as good a prerequisite for advanced Botany courses as Botany 1a, 1b. The possibility of accepting Botany 5 for Arts and Science credit was considered. Dr. Brodie felt that this course was as valuable to an Arts student as was Botany 1a,1b, the principal difference being that of emphasis. In Botany 5 more stress was placed upon the identification of native plants and less on foundational materials. At Summer School these two courses are given in alternate years. Botany 5 is to be found in many Education programs and such an acceptance would reduce the course requirements for a B.A. after a B.Ed. for those who had taken it. His department did not at this time feel that they would recommend Botany 5 to be accepted as a course for credit in Arts and Science or construct a new course that would be offered for both the needs of Education and Arts and Science.

Dr. Brodie agreed to remove the a) and b) from the course in Mycology, Botany 54 on the suggestion that, if Agriculture wished to take only the first term, that a new half course be constructed specifically for the needs of that Faculty. He explained that Botany 56 (Special Problems) had been created for a few students who might wish more laboratory work. It would be open to students in the Botany pattern in their third year.

The Dean explained that Psychology 53 (Behavioral Statistics), is a statistics course for students in Psychology and Sociology, more concerned with the use of statistical methods than in the mathematical theory which underlies them. Students will learn the formulae and the assumptions involved, and hence their proper use. In Mathematics 45 (Statistics) there is far too little application of statistical formulae and what there is is of the wrong kind. There were precedents for such courses in Education, Agriculture, and in biological departments elsewhere. The course would be for those in Experimental Psychology and for Honours students and might be taken as an option in B.A. patterns. A students should not take both Mathematics 45 and Psychology 53

The Dean explained that Psychology 52 was exactly the same as Sociology 52. The other proposed Psychology courses reflected the interests of new instructors.

Dr. Blackley explained that Political Science 65 was a course formally designated History 65 and that Professor Davy, who had given History 65, would give Political Science 65. This action had been taken with the knowledge and consent of the History Department who, for some time, had felt "International Affairs" to be more truly a political science than a history course. The Political Science submission was approved.

The Committee recommended the amalgamation of Chemistry 1 or A in the calendar, since the two courses are the same in content, 1 being given for university credit and A for the purposes of removing matriculation deficiencies.

It was also explained to the Committee that the Department of Chemistry wished to restrict Chemistry 54 (Elementary Physical Chemistry) to Honours students and a few other good students. Chemistry 53 would be taken by others requiring a Physical Chemistry. For this reason, the Department had wished as well as the stated prerequisite "an average of at least 60%...in the previous year's work in all subjects". Cou The Committee recommended that, instead, the note attached to this course should read "restricted to Houours Chemistry students or with the consent of the instructor". The Department of Chemistry agreed.

By the proposed changes, Chemistry 57 (Inorganic Chemistry) became a full course.

The Committee recommended the deletion in the proposed offerings in Chemistry 151 and Chemistry 152 which were to be Departmental Research Seminars. If these courses were to be given numbers they must be counted as courses in a program and given marks, which was not the intention of the Department of Chemistry (see Honours Report).

Professor Ryan explained that the proposed English 72 (English Drama from the beginnings to 1700) would exclude Shakespeare. The present English 69 (Literature of the English Renaissance) did include Elizabethan drama but was far too broad in scope. The proposal envisaged the dropping of Elizabethan drama from this course and from it creating the new course.

Professor Ryan felt that this change might necessitate a change in the course description of English 69, but the Department of English had not yet approved this suggestion.

The Committee adjourned at 12:50 p.m.

Douglas E Smith

Douglas E. Smith
Chairman

27/11/58

F.D. Blackley

F.D. Blackley,
Secretary

The second meeting of the Executive Committee of the Faculty of Arts and Science was held on Monday, 19th January, 1959, at 7:30 p.m. in the office of the Dean. Present were Dean Smith (the Chairman), Drs. Brodie, Hanson and Wyman, Professor Ryan and Dr. Blackley (the Secretary).

The minutes of the first meetings of the Executive Committee were approved as circulated. Dean Smith suggested that the Executive Committee alternate members should receive copies of the minutes and agenda for information purposes. To this the Committee agreed.

1. The "Meaning of Marks" and a "Proposal for Changes in the Grading System".

The Chairman suggested that the Committee consider first the report of Dr. Brian Hocking entitled "Meaning of Marks" which was being discussed by the various University Faculty and School Councils. With this was also discussed the Registrar's memorandum entitled a "Proposal for Changes in the Grading System."

The opinion was advanced that the system of course rating contained in the Registrar's proposals was very complicated and that the weighting might be considered arbitrary and not too honest. The scheme of Professor Hocking, at least, had some validity inherent in it. The Dean pointed out that the Registrar did not hold a strong opinion on the actual scheme he proposed, but did feel strongly that the university grading system should be thoroughly investigated.

It was felt by the Dean that whether we mark by grades or numbers the problem remains the same. Those who now hesitate to give very high numerical marks for what they do admit is an excellent piece of work would be just as hesitant to give a grading such as A plus. Under the present system, there is a Revisions Committee that can tamper to a limited degree with marks provided that the Department concerned does not object. Hocking's system does not make provisions for this.

Dr. Wyman noted that many faculties, such as Law, do not use the upper part of the existing scale and this would probably be the case were a new one adopted. Professor Ryan pointed out that the spread of marks is never the same in widely separated disciplines and that the upper ones do not coincide.

Dr. Wyman suggested that the top men in each class might be assigned the mark of 100. Dr. Blackley objected to this view on the grounds that, in some cases, a class may contain no first class student, let alone one worth 100%.

Dr. Brodie felt that the universities that used the letter system never had enough spread in the A bracket.

Dr. Wyman thought that the vast bulk of marks between 51% to 79% were virtually useless in a short time. As soon as a student graduated his precise grades, unless they were very good, would mean nothing to him or to his employers: the degree alone would count.

The Dean noted that you cannot average a series of A pluses, minuses, etc., unless they are transformed into numbers, as in the Registrar's proposals.

Dr. Wyman said that the universities who use the letter scale actually make use of the real mark for weighting purposes. He suggested that some average mark might be assigned to each class. This, as the Dean stated, would amount to marking on a curve.

Professor Ryan observed that the average high could be calculated over a number of years and that the top mark in each individual class should be rated as above or below it.

It was felt that scholarship people might profit from such a weighting, if they were related to a standard score, since there are not very many of them. It would be an arduous and wasted labour to do this for all students and marks.

It was felt that whatever scale was adopted we should be able to explain on transcripts to American registrars, etc. the real meaning of our marks.

Professor Ryan noted that, if a new scale was set up, this might well invalidate all our past marks. Some scheme should be devised, if possible, to hook up the new grading with the old.

Dr. Wyman felt that we should not perpetuate old mistakes simply for uniformity. It was perhaps the ideal time to change the grading system now that the University is renumbering all its courses.

The Committee wondered how much time would be consumed on the reports of Dr. Hocking and of the Registrar in Faculty Council in view of the time that it had spent itself. The suggestion was made that, in Council debate, members might be limited to one speech each.

The Dean summed up by noting that from the Committee not much had been obtained beyond individual opinions. It, however, did seem to be the general feeling that an investigation of grading would not be amiss at this time when a course renumbering was in progress. He felt that the Committee could support a recommendation that gradings be investigated with a view to finding an improved system and that the investigating body be a committee of General Faculty Council.

The Committee agreed to forward to Council the proposals of the Registrar with a recommendation that a Committee be appointed by either the President or Deans' Council to study the merits of a system of "processing" examination marks that would include features either the same as or similar to those suggested by the Registrar. The Report of Dr. Hocking would be discussed by Council without Committee recommendations.

2. Nominations for the Revisions Committee

The Chairmanship of the Revisions Committee, it was noted, had been vacant since the retirement of Dr. Blackley, whose term on that committee expired in October, 1958. In addition to a chairman, who would be selected from the remaining Committee members (Professors Nursall, Kreisel and Jacka), a new member from B division was necessary, since Dr. Blackley had been the B division representative as well as chairman.

The Dean noted that the chairmanship normally went to the most senior of the remaining committee members. Of these, Dr. Nursall alone had served for any length of time, and Dr. Kreisel and Professor Jacka had served but one year. Dr. Blackley expressed the view that Dr. Nursall alone possessed sufficient experience to hold the chairmanship. The Dean stated that Dr. Nursall had agreed previously to serve as chairman if asked. The Committee agreed that the Dean should approach Dr. Nursall to let his name stand.

The Dean considered the possibilities for a Division B member and, when these were investigated, the most reasonable appointment seemed to be that of Dr. Laycock of the Geography Department, who was singularly "uncluttered" by committee memberships. The Committee agreed that the Dean should approach Dr. Laycock on this matter.

Dr. Blackley took this opportunity to make some remarks on the Revisions Committee. He stated that both he and the Dean felt that the Committee did need some set of rules for its guidance, similar perhaps to the rules followed by the first year Committee. The latter, for example, would only raise a mark of 48 to 50 if the students average was 60%: the Revisions Committee has worked upon a principle of "borrowing from abundance".

Often that abundance was of a scanty nature, indeed, and Dr. Blackley felt that the connection between a slight abundance in History and a paucity in Physics was not too clear. He felt that some committee, perhaps composed of the present Revisions Committee and its immediate past chairmen (Drs. Blackley and Davis) and representatives of the First Year Committee, might greatly help to standardize a justifiable set of rules.

Dr. Wyman wondered if the university should not adopt an average such as 60%, rather than the present seconds requirement. It was wondered how many Canadian universities demanded a specified number of seconds in their pass or general courses.

The Dean replied that with such an average, and it existed in such schools as Commerce, there was always a constant tampering. Each spring such schools considered where they would draw the line. That might be at 58.6% even though the stated average was 60%. Since we are entitled to think that students can add and multiply simple sums, they know very well what their average was and when average rules have been flouted. He felt (and this was the conclusion of a survey once done by Dr. Wyman) that the requirement for six seconds was a tougher criterion than an average of 60%.

3. Nominations for the Honors Committee

The Dean stated that for some time he had felt that he should not serve both as chairman of the Honors Committee and also as the representative for the Department of Philosophy and Psychology. This was considered a wise suggestion and the Committee approved the Dean's suggestion that Professor Mardiros be asked to take his place as such a representative.

The Dean continued that, although Physiology had an Honors Program, there was no representative of the Department of Physiology on the Honors Committee. The Committee agreed that Dean Smith should approach Dr. Pearce, the Head of the Department of Physiology, either to serve himself or to nominate some member of his department, such as Dr. Nash.

4. The Renumbering of Courses

As a preamble, the Chairman noted that the problem of forty courses had been almost solved by the suggested departmental renumberings, with one exception. Some departments, such as Chemistry, had adopted systems which took subject matter into account. Others, such as Geology, had simply added a digit in front of the existing numbers. On the whole, he felt that departments had given the renumbering a good deal of thought and that, if they insisted, their individual proposals should go forward to Faculty Council. Suggestions, however, might be made to departments for improvements before that meeting.

Geology must assume, he thought, that their present system was a good one and that they had few, if any, plans for new second year courses. Dr. Brodie, however, wished to know what Geology would do if it wished to add a new course in the proposed 350 to 360 series.

Professor Ryan said that the English courses were arranged in chronological order, with some staggering for space that might be needed for future offerings. It was felt that the Department of Political Economy had evolved almost a "Library of Congress System."

On the proposals of the Department of Botany, Dr. Brodie said that the sequence of courses in such a small department need not be too rigid. As a result, it did not matter greatly in which order the present

Botany 51, 52, etc. came. It was felt, however, that Botany 306 (Special Problems) might be given a higher number since it was obviously a very senior undergraduate offering.

The Dean felt that the new numbering system should make it very clear that no student in his first year should take a course numbered 300 or higher. Furthermore, no student should take a course numbered 500, or higher, without the specific approval of the Dean's office.

It was noted that the renumbering system had to contain courses that could be taken either in the second or third years. This applied, for example, to the senior offerings of the Department of History. However, if a course definitely had as a prerequisite a second year course, it should be numbered in the 400's. This number could serve as a danger signal to people registering students in their second year.

The question of a number for Biology 41 was discussed, with the notion that this was, really, a junior course. Should it be given a junior number with a statement that it must not be taken in first year, or should the whole problem be referred to Council for instructions? As Biology 41 was now taught, it really consisted of a watered down version of Botany 1a and 1b and Zoology 1.

It was asked if a course could not be developed in the biological field that would be a real senior course for Arts students to follow either Botany 1 or Zoology 1. Dr. Brodie felt that this was indeed possible, but the notion would have to be considered by the departments concerned.

Biology 41 and Physical Science 41, the Dean explained, had a history behind them. In the old system students took Biology 41 and Physical Science 41 in their second and third year of Arts. Here the idea was that in such courses they would be given the broad principles of these disciplines.

Dr. Brodie felt that such broad principles were possible only if the student possessed certain fundamental facts. Without them little could be done.

The notion was considered of dropping both courses but this was not upheld.

Should the opportunity now be taken to make these courses first year courses, or should "sleeping dogs be allowed to lie"?

It was decided to continue the two courses as senior courses for the time at least and, since Physical Science 41 had now a senior number, Biology 41 should be given one in line. Biology 41, therefore, should be called 341 and Physical Science 341.

The renumbering of Art courses was next discussed, with opposition being shown to the proposal of the Fine Arts Department to give 500 numbers to certain diploma courses which would imply, according to the overall university scheme, that they were in the Honors, Advanced and Graduate Group. These were referred back to the Fine Art Department with Professor Ryan agreeing to negotiate. It was to be suggested that the fourth year diploma courses be numbered 450 and up, but not beyond 499.

It was felt by the Executive Committee that some change might be made in the proposed renumbering of the Geology Department, since Geology had simply added the digit "3" before each of its existing numbers. Some of the courses with senior prerequisites should be 400 numbers and a general loosening of the renumbering would allow for courses additions later. Dr. Wyman agreed to discuss this with Dr. Folinsbee.

The Dean read a letter from Professor Penelhum on the subject of the proposed new number for Philosophy 40 (The History of Western Philosophy). This course was previously Philosophy 51, a real senior course, and the content was in no way watered down when it was assigned to a junior-senior number. Professor Penelhum thought that Philosophy 40 was not a junior course and should not have a junior number.

The Executive Committee, however, felt that, since Philosophy 40 was the beginning course for the Philosophy concentration in the Philosophy pattern, it must have a junior number or a true junior course should be devised. With most patterns, it was not impossible to take junior courses as options in the senior years, and Philosophy 40 would not be restricted to first year students as Professor Penelhum feared. The Dean agreed to communicate this opinion to Professor Penelhum.

Dr. Brodie agreed to see if the suggested number for Genetics 51 might not be altered from 451 to 351, unless it was an integral part of the Faculty of Agriculture's renumbering scheme.

Dr. Hanson explained that Economics 311 might be a first year course in future developments, but for the moment had been given a senior number. Dr. Blackley noted that the History Department had no objection to this course but by agreeing to it in no way prejudiced its right to offer Economic History courses at a later date.

Dr. Hanson said that Economics 471 was a course for Arts students and not a course for Commerce students. Whether or not his department might give a similar course for Commerce students was something that must be discussed with the School of Commerce. Economics 471 might be an option for Arts and Engineering as only one Business Administration course had Arts and Science credit. The Dean felt that this was unlikely, since with its prerequisites of other senior Economics courses no Engineers and few Artsmen not in the Economics pattern or Honors could take it.

Professor Ryan introduced a new course in English on the graduate level, English 660, with the title Studies in American Literature (3-0;3-0). Professor Jones, he noted, had agreed to change the title of English 69 (to be 324) to Non-Dramatic Literature since the Drama had been dropped out.

5. Changes in Honors Programs

The Committee agreed to the suggested Changes in the Honors Programs. These, the Dean pointed out, had not been placed before an actual meeting of the Honors Committee, a Committee of which he is the chairman. He proposed, however, to pass them on to Council as recommendations of the Honors Committee provided that members of that Committee did not object.

6. Proposed new Combined B.A, L.L.B. Course

Dr. Blackley informed the Committee that he had secured the consent of Dean Bowker for the amendments in the program, including the addition of the new "pattern" in Philosophy. The latter had been discussed by him with Professor Mardiros of the Philosophy and Psychology Department. Professor Jones had expressed himself as satisfied with the changes in the English "Pattern". Dr. Blackley went on to note the feeling of Dean Bowker that the combined course allowed a "cheap" degree in Arts and his wish to see at some future date the end of this program. Admission to Law, then, would come only with the possession of a regular bachelor's degree.

7. Proposed Course in Behavioural Statistics

The Committee then considered the proposal of the Department of Philosophy and Psychology to introduce a course in Behavioural Statistics to be taught by itself and made compulsory in the second year of the B.Sc. pattern in Experimental Psychology. This course would be the statistics course taken by students in that pattern, not Mathematics 45. This proposal had been opposed by the Department of Mathematics, and others, in Arts Council and had been referred by Council to the Executive Committee.

It was noted that the Department of Philosophy and Psychology felt that, for their purposes, Mathematics 45 was unsatisfactory. Non-parametric statistics, for example, which dealt with qualitative ratings rather than with quantitative surveys, very important in the social sciences, were not covered in Mathematics 45. In social science problems considerations of the nature of the data were as important as the statistical methods applied to data.

Speaking for the mathematicians, Dr. Wyman felt that those trained in a fundamental discipline should be the ones to teach its applications. There was always the danger that mathematical techniques, and upon techniques the proposed course would concentrate, become obsolete, but fundamentals never do. He wondered just what knowledge of statistics a student would get from the course under discussion. Formulae should only be applied by those who understood the limitations on their assumptions.

Replying for the psychologists and sociologists, the Dean said that it was not the practice at all universities for the teachers of a fundamental discipline alone to teach its applications. He realized that a psychological statistician needed even more than Mathematics 45, and that "more" would include at least two courses in calculus. However, the aim of the proposed course was not to produce statisticians, but to enable those who took it to read intelligently the journals on psychology.

If such a course were approved, the Committee wondered what statistical background the instructor who gave it would have. The Dean felt that this could be laid down. It should be possible to hire a psychologist with a good mathematical background.

Since there was no agreement in the Executive Committee, the proposal of bringing together the two groups concerned under the chairmanship of Dr. Hanson was approved in the hopes that some compromise might emerge. Dr. Hanson was empowered to report directly to Council any such compromise.

The meeting adjourned at 11:10 p.m.

Douglas E. Smith

Douglas E. Smith
Chairman

F. D. Blackley

F. D. Blackley
Secretary

The third meeting of the Executive Committee of the Faculty of Arts and Science was held in the office of the Dean at 3:00 p.m. on 17th February, 1959. Present were the chairman, Dean Smith, and Dr. Hanson, Dr. Wyman, Dr. Brodie, Professor Ryan and the secretary, Dr. Blackley.

The minutes of the previous meeting were approved as circulated.

1. Designation of Top-ranking Students

As directed by the Council of the Faculty of Arts and Science, the Executive Committee considered the submission of the General Faculty Council Committee on the Designation of Top-ranking students. The report of the latter recommended that all faculties use the term "distinction" for the attainment by students of first class standing. In Arts and Science, a student with such standing would be granted, for example, a degree in Honors History with distinction rather than a degree with first class honors in History.

The Registrar's office had prepared a summary of the practices of various Canadian universities on this subject. This, in an abbreviated form, had been appended to the agenda of the committee.

It was pointed out that the present practice in Arts and Science Honors courses was to give a degree with either First Class Honors or Honors. Was this practice to our advantage or disadvantage? Members of the Executive Committee admitted that some ambiguity did come as a result of an degree with Honors and a degree with First Class Honors. The use of the term "with distinction" would eliminate this confusion.

In the practice of Canadian universities, great variations were found. Universities such as British Columbia and Queen's used the term "honors" in two senses: (1) an intensive program demanding high standing; (2) high standing in certain faculties where there is no such program.

McGill used honors for honor courses and gave degrees with distinction or top distinction in other programs. Some universities, such as New Brunswick, give first and second division degrees. Others used only the terms "distinction" and "great distinction".

Dr. Wyman held that the designations in question were of no great importance to other universities. Assessments of our degrees by other universities turned on the repute of the granting institution.

It was generally felt that there was some ambiguity in the present terminology, although first-class honor standing had the support of tradition in the faculty. The committee was prepared to recommend to the Faculty of Arts and Science the report of the General Faculty Council Committee, provided that all other faculties did likewise, but in the interest only of uniformity. If all faculties did not accept the recommendations, the Committee felt that the Faculty of Arts and Science should continue its present policy.

2. Petitions

The Committee approved the petitions of the following third year Honors students to apply for a degree in the General Course at the Spring Convocation:

Duby, Pauline (Modern Languages)
Gelech, Elsie (Modern Languages)
Hicken, Kenneth (Physics)
Schymizek, Sylvia H. (Biochemistry).

The Dean noted that the Revisions Committee would review the record of such students, who, especially if they did not clear their third year in Honors, might be required to take courses which would adjust them to the pattern of the General Course where one existed.

The Committee also considered the petition of Mr. Ernest E. Turnbull (Honors Economics) that he might transfer to the General Course and complete his degree by writing an additional subject or subjects beyond his third year Honors program. Mr. Turnbull was a transfer from the University of Edinburgh where he had taken subjects for which normally he would not be given credit in the General Course since he had written no final examinations in them. At Edinburgh such examinations would not be written until the fourth and final year. It was agreed that Mr. Turnbull could qualify for his degree by successfully completing his current registration and selecting one subject in addition (selected from those which he had taken at Edinburgh but in which he had written no final examination.). It was suggested that Mr. Turnbull write one of Political Science 63, Psychology 40, History 57 or Mathematics 45.

Mr. Turnbull, in consultation with the Department of Political Economy, asked for the approval of Political Science 100 (Advanced Political Thought) rather than any of the courses designated as the extra subject. This request was approved by Dr. Blackley after consulting by phone with the members of the Executive Committee.

The Committee granted the petition of Miss Hilda Helen Warkentin, a partial B.A. student (English pattern), that she be allowed the privilege of a four-course final year in accordance with the regulation rescinded at the meeting of the Council of the Faculty of Arts and Science on 7th October, 1957. Miss Warkentin's petition was upheld on the grounds of her excellent record to date and the fact that this privilege had been promised to her before the rescinding of the rule.

The petition of Miss Marion Margaret Neild was also upheld. Miss Neild requested that she be given university credit for a course taken at the Banff School of Fine Art as a Special Student. Miss Neild was fully matriculated at the time, but had not been required to fill out a proper admission form at Banff.

The Dean pointed out that, until now, it had been possible for students to take courses at Banff which could bear university credit without filling out admission forms. In future, as a result of conversations held this spring, this problem would be eliminated. All students will now be required to register properly and petitions such as that of Miss Neild would not be possible. Since Miss Neild had university entrance when she went to Banff, no precedent was being created.

Petitions for recognition of courses taken as a special student will continue to be submitted. Occasional registrations as a special student are allowed for an applicant who had the equivalent of our matriculation standing while he is obtaining his documents from countries such as England. In other instances, a special student may complete his matriculation and ask for credit in university courses. All such cases will be considered on their individual merits.

3. Business Administration 40

The Dean announced that the course entitled Business Administration 40 (Business Administration - General), at present allowed in this faculty as a B division option, would not be offered by the School of Commerce because of staff shortages. It was agreed to recommend to General Faculty Council that Business Administration 40 be dropped from the offerings of the Faculty of Arts and Science for the session 1959-60, subject to later approval by Arts and Science Council.

4. Music Courses

The Secretary presented the proposed offerings of the Music Division of the Department of Fine Art as they had been given to him for inclusion in the calendar. He gave as his opinion that the changes these offerings contained were so extensive as to warrant approval by Council. The Committee agreed that such approval should be sought from General Faculty Council subject to later approval by Arts and Science Council.

5. Diploma Courses in Art

The Secretary reported that the Fine Arts Division of the Department of Fine Art had been advised by the Committee on course renumbering to follow the general scheme for its diploma courses which entailed the use of no numbers higher than 499. Authority was given for him to work with that division on a suitable re-numbering scheme which he was instructed to submit to General Faculty Council and, if approved, to the next meeting of the Arts and Science Council.

The Dean asked for the opinion of the Committee on requiring notice of questions relating to the report of the Executive Committee when this report was considered by Council. The Committee felt that, since one of its primary functions was to speed up Council proceedings, such a regulation was entirely justified.

The balance of the meeting was occupied by a report of the Dean on what he had seen of administrative procedure while recently visiting the University of British Columbia.

Report of the Dean

While our calendar, in bold-face type, states "A student is responsible for the completeness and accuracy of his registration", registrations are very thoroughly checked in the Dean's office. We see and approve all registrations in this faculty for summer sessions, the evening credit program, and check all Tentative Course Selection forms. This all takes a great deal of time, but this attention seems to be necessary. All Tentative Course Selection forms have received departmental approval, yet about one-tenth of them have to be corrected.

Much of this checking is made necessary by our complicated pattern system. It is not possible to see at a glance the needs of any particular student. The amount of such work we have to do, therefore, depends upon current policy.

At the University of British Columbia, the Faculty of Arts and Science is by far the largest faculty, yet the Dean's office does no work connected with registration. Registration is the province of the Registrar unless something very unusual occurs. Then, a decision is made by the Dean concerned, the Dean of Faculties and the Registrar. If possible, the Registrar will use the decision arrived at as a precedent.

A machine record system is used and registration itself is screened by a very few people. This is possible because of the flexibility of programs - two compulsory subjects in the first year and three electives, for example. There are very few slips.

The fourth year cards are put through the machines first so that errors usually are picked up within two or three weeks. If not and the error is not a very serious one, the student will be allowed by the Dean to graduate; if the error is a serious one he does not and has no option but to accept the consequences of his own error.

There is no real revisions committee. The Registrar screens all records and applies rather cut-and-dried rules regarding passing or failing the year. Only appeals go to the Dean who is provided by the Registrar with the relevant file.

Each spring, along with his marks, a student gets from the Registrar a statement of his deficiencies. He brings this at registration time and is registered in terms of it, as well as of the curriculum for that year.

Here, the Registrar is a record keeper who acts on the authority of each Dean. At the University of British Columbia this is not so.

It was felt by the Executive Committee that a good senior clerk could save the office of the Dean a good deal of work that should not be placed upon the shoulders of teaching or administrative staff. Some redistribution of authority might also assist in lightening the work.

Dr. Brodie stated that at his former university there was registration and then, after two weeks, a supplementary registration period for adjustments. At it a student could, and often did, change a good deal of his preliminary registration.

The meeting was adjourned at 5:45 p.m.

Douglas E. Smith
Douglas E. Smith
Chairman

F. D. Blackley
F. D. Blackley
Secretary

The fourth meeting of the Executive Committee of the Faculty of Arts and Science was held in the office of the Dean at 3:00 p.m. on 6th April, 1959. Present were the Chairman, Dean Smith, and Dr. Brodie, Dr. Hanson, Dr. Wyman, Dr. Greene, Professor Ryan, Professor Eaton, and the Secretary, Dr. Blackley. Dr. Greene was present in his capacity as Chairman of the Patterns Committee and Professor Eaton as head of the Music Division of the Department of Fine Arts.

1. Minutes of the meeting of 17th February, 1959.

The minutes of the meeting of 17th February, 1959 were approved as circulated.

2. Music Courses.

It was pointed out by the Chairman that students in the Bachelor of Music program, while officially enrolled in Music 200, 300, 350, 400, and 450, in fact do not take the same laboratories as those students who take these courses in the standard B.A. patterns or in Education. It was felt by the Executive Committee that this inconsistency should be removed by the setting up of separate courses for the respective laboratories. Authorization was, therefore, given to Professor Eaton and the Faculty Secretary to deal with this problem and to report directly to the Faculty Council with their recommendations. They were instructed to use the B.A. and B.Ed. programs as the norm and the B.Mus. program as the variation.

As a result of the deliberations of Professor Eaton and the Faculty Secretary, the following re-numbering of courses was presented to (and approved by) the Faculty Council:

Music 203 0-3; 0-3

An instrumental class in the principles and practice of woodwind instruments.
This course is a requisite in the first year of the Bachelor of Music program.

Music 300 2-2;2-2

A study of the history of music from the years 1600 to 1900. Scores and recordings of music are provided. A critical evaluation of the styles of the various composers is emphasized. Detailed study of musical form and analysis.

Texts: A History of Music - Finney
Form in Music - Macpherson

Music 301 0-3;0-3

An instrumental class in the study of brass, woodwind and stringed instruments as they apply to band and orchestral groups.

Music 303 0-3;0-3

An instrumental class in the principles and practice of stringed instruments.
This course is a requisite in the second year of the Bachelor of Music program.

Music 353 1-0;1-0

A class in orchestration. Scoring for various combinations of woodwind, brass and stringed instruments. Problems of instrumentation, transcription and arranging.
This course is a requisite in the second year of the Bachelor of Music program.
Text: The Technique of Orchestration - Kennan

Music 400 2-2;2-2

A study of the history of music with special emphasis on the Middle Ages, Renaissance, and the Twentieth Century. A weekly seminar is provided for in which topics, previously studied, are discussed.

Texts: Music in History - McKinney and Anderson
Our Musical Heritage - Sachs

Music 401 0-3;0-3

A sequent course to Music 301. Skill is to be achieved in the playing of one instrument from each of the woodwinds, brass and strings.

Music 403 0-3;0-3

An instrumental class in the principles and practice of brass instruments. This course is a requisite in the third year of the Bachelor of Music program.

Music 453 1-0; 1-0

A class in advanced orchestration. Scoring for the large orchestra and band. Study of selected scores.
This course is a requisite in the third year of the Bachelor of Music program.
Text: The Technique of Orchestration - Kennan.

The Bachelor of Music program, thereby, was amended to read:

First Year:

Music 200 - History of Music, Choral Technique, and Conducting.
Music 203 - An instrumental class in the principles and practice of Woodwind instruments.
Music 250 - Ear Training and Keyboard Harmony, Harmony and Counterpoint, Form and Analysis.
English 200
Practical First Subject - (Grade IX, Western Board of Music)
Practical Second Subject - Chorus; Orchestra.
Physical Education.

Second Year:

Music 300 - History of Music
Music 303 - An Instrumental Class in the Principles and Practice of Stringed Instruments.
Music 350 - Ear Training and Keyboard Harmony, Harmony and Counterpoint.
Music 353 - A class in orchestration.
An Arts and Science course.
Practical First Subject (Grade X, Western Board of Music)
Practical Second Subject - Chorus; Orchestra.

Third Year:

Music 400 - History of Music
Music 403 - An instrumental class in the principles and practice of brass instruments.
Music 450 - Ear Training and Keyboard Harmony, Harmony, Counterpoint.
Music 453 - An advanced course in orchestration.
Two Arts and Science courses.
Practical First Subject (Grade XI, A. Mus., Western Board of Music)
Practical Second Subject (Grade VII, Western Board of Music); Chorus; Orchestra.

The variation between music courses in the B.Mus. program and those in the B.A. patterns and B.Ed. program was illustrated thus:

Old	For B.A.; B.Ed.	B.Mus.
200	200	200) 203)

Old	For B.A.; B.Ed.	B. Mus.
250	250	250
300	300) 301)	300) 303)
350	350	350) 353)
400	400) 401)	400) 403)
450	450	450) 453)

2. B.A. Program in Mathematics.

The proposal of the Department of Mathematics to introduce a B.A. program in Mathematics for those who liked Mathematics but had no fondness for the Physical Sciences had been considered by the Patterns Committee. Dr. Greene, the Chairman of the Patterns Committee, was present at the meeting. This program contained six mathematics courses and no course in biological science, required in all other B.A. patterns.

The proposal, although accepted in principle by the Executive Committee, led to a good deal of discussion on the "falling away" of the patterns systems. The proposed program might allow an individual thinking of actuarial work to take only courses in Economics, Accounting and Mathematics thus giving him a specialized course that it had been the purpose of the patterns to deny. The old "sequent" system was not as bad as had been made out and had allowed more science courses in a B.A. than the present patterns. The dropping of the biological science had an implication that some members did not like.

If the B.A. was supposed to be a program in the Humanities, how many Mathematics courses could be said to be slanted in that direction? Dr. Wyman felt that Mathematics 350 (Modern Algebra) and Mathematics 270 (Algebra) certainly would fall into this category, and that Mathematics 250 (Theory of Finance), Mathematics 255 (Statistics), Mathematics 310 (Elementary Mechanics) and Mathematics 450 (Probability and Statistics) all were useful to the Economist.

To the question as to whether or not a holder of a B.A. in Mathematics could proceed further in the field of Mathematics, Dr. Wyman stated that, if his marks were good, the Department would be very glad to arrange for him an M.A. program in Mathematics. As to the question of the vagueness of the Arts options, Dr. Wyman felt that this was wise, at least at the beginning, and he would regret restricting students to a narrow choice.

The Committee agreed to recommend the B.A. in Mathematics to Faculty Council, amended by the dropping of the sixth Mathematics course and the inclusion of a biological science.

3. The Status of the Half-courses Mathematics 305 and Psychology 334.

The Chairman pointed out that the two half-courses were required in the B.Sc. pattern in Experimental Psychology. However, there would be students in the B.A. Psychology pattern that might wish to take this course and this raised the problem of the division into which they should fall. The general feeling at first seemed to favour a B division but later veered to accepting the two half-courses as a C division course.

4. Petitions.

By virtue of the authority vested in it by Council, the Committee approved the petitions of the following third year Honors students to apply for degrees in the General Course at the Spring Convocation:

Richard William BIDE (Biochemistry)
Margaret Lynne FARNHAM (Biochemistry)
Olga HENDERSOHN (Modern Languages)

Miss Hendersohn, who has been ill, was not registered in the 1958-59 session but had been given special permission to return to her Honors program if she so desired.

Miss Judith Armstrong was given permission to transfer from the second year of the Modern Languages pattern to the History pattern. Her request to take four History courses in her final year was not approved. She was allowed to take three in a five-course year but her missing History requirement must be obtained at a Summer School or by some other acceptable method.

Mr. Richard A. Lant requested a transfer from the B.Sc. pattern in Mathematics to the third year of the Economics pattern. This transfer would necessitate four Economics courses in Mr. Lant's final year. The Committee refused this permission, suggesting instead that Mr. Lant consider the proposed B.A. pattern in Mathematics.

Mr. Andrew K. Clark requested a transfer from the Psychology pattern to the third year of the English pattern. Such a transfer would necessitate a six-course final year (which would depend upon his marks in the 1958-59 session) including four senior English courses. The Executive Committee felt that four courses in one subject in one year could not be allowed. The Dean, however, indicated that he would be prepared to allow a modification of the English pattern for such a good student as Mr. Clark, provided that his final marks were in keeping with his Christmas results. Mr. Clark for his fourth English would substitute an A division course that was approved by the English Department. Mr. Clark was conditionally allowed to transfer to the English pattern.

Mrs. J. G. Cameron petitioned to be exempted from her sixth matriculation subject for entrance into the Faculty of Arts and Science in view of her age and background. This request the Committee was not prepared to approve. The Dean stated that he would allow Mrs. Cameron to enter Arts and Science with one deficiency which must be cleared before she could be promoted to second year.

Miss Barbara Joan Elliot requested credit on a degree program for the Sociology 40 she took as a special student. Since Miss Elliot was a fully matriculated student and accepted for a degree program by this Faculty, the Committee approved her petition.

Mr. Charles Hebert requested the Committee to clarify his position in the B.A. program. It was discovered that Mr. Hebert, who is 68, had been pursuing a degree program for many years, with the result that he met with neither the old nor the new regulations. The Committee decided to require Mr. Hebert to take three more courses which should include two senior English courses and one C division option for a B.A. in the English pattern.

Miss Catherine Warren, on the basis of work done in Nursing, in the Zoology pattern and in two years of Medicine, requested a B.Sc. in the Zoology pattern. The Executive Committee agreed to allow Miss Warren a degree in the General Science pattern provided that she successfully completed her second year in Medicine and acquired credits in Mathematics 5 and a senior A or B division option at Summer School. Miss Warren is not proceeding to her M.D. degree.

5. English 210 at Lethbridge Junior College

The Chairman noted the request of Dean Cousins of Lethbridge Junior College to introduce English 210 for science students. The English Department was satisfied that the college had competent instructors to offer the course. To the question of its necessity, since B.Sc. students can take either English 200 or 210, the Dean noted that this was so but that General Faculty Council had approved this choice. It was agreed that English 210 might be offered at Lethbridge Junior College for science students.

The Committee adjourned, with the next meeting in mid-September to be announced.

Douglas E. Smith

Douglas E. Smith,
Chairman

F. D. Blackley

F. D. Blackley,
Secretary

The fifth meeting of the Executive Committee of the Faculty of Arts and Science was held in the office of the Dean on 5th October, 1959 at 3:45 p.m. Present were the Chairman, Dean Smith, and Dr. Brodie, Dr. Hanson, Dr. Wyman and the Secretary, Dr. Blackley. Professor Ryan was absent.

1. Minutes of the meeting of 6th April, 1959.

Since the meeting of the Executive Committee was held on short notice, the minutes of the meeting of 6th April, 1959 were not approved but held over for the next meeting of the Committee.

2. Appointments.

(a) Alternates for the Executive Committee.

Not being an "election year" for the Executive Committee, the Committee proceeded to exercise its delegated right to appoint an alternate member for Arts and an alternate member for Science for the session 1959-60. After some discussion, Dr. Newbound, the alternate for Science in the session 1958-59, was re-appointed after consenting so to serve. Dr. Greene, the 1958-59 alternate for Arts, could not so be re-appointed since he was absent on sabbatical. The names of Dr. Thomas and Dr. Wonders were considered. The Dean stated that he would prefer to see Dr. Thomas accept the position of Chairman of the Patterns Committee, also vacant, rather than the position of Arts alternate on the Executive Committee. Accordingly Dr. Wonders was elected as Arts alternate.

(b) Patterns Committee.

Here there were two vacancies, one as a member for Division A, and the other for the post of Chairman. Professor Eaton was nominated as the member for A. Dr. Thomas was nominated as Chairman for one year, vice Dr. Greene. The Dean noted the importance of this Chairmanship in a year in which he expected a review of the whole patterns system.

(c) Revisions Committee.

With the retirement of Dr. Nursall as Chairman, the Revisions Committee lacked a chairman and a member representing the biological sciences. The Dean pointed out that, by custom, the chairman was the senior member of the committee and that Dr. Kreisel was the traditional and logical successor to Dr. Nursall. The other members of the Committee, however, were not by experience or temperament prospective future chairmen. He, therefore, suggested that the new appointment might be a man who could succeed Dr. Kreisel as Chairman. It was not his opinion that the other committee members would object to such an arrangement and understanding. He suggested Dr. Whyte of Botany as an obvious safe appointment who had the experience necessary from many years on the First Year Committee. Other suggestions were Dr. Hickman and Dr. Hocking. Dr. Hocking, however, was retiring from the Arts and Science Council and, therefore, declared himself to be ineligible for the appointment.

The Committee agreed on the desirability of Dr. Whyte but felt that this might not be in Dr. Whyte's own best interests. He had served on too many committees and it was felt that the nomination, which he probably would accept, should be left in abeyance for further thought.

3. Petitions.

The Committee considered the petitions of Mr. Tichkowsky, Mrs. Cooper, Miss Phyllis Darby and Mrs. Hope Tower, details of which and decisions made

5th October, 1959

are to be found in the minutes of the Arts and Science Council of 2nd November, 1959.

Douglas E Smith

Douglas E. Smith,
Chairman

F. D. Blackley

F. D. Blackley,
Secretary.

November 16th, 1959.

The sixth meeting of the Executive Committee of the Faculty of Arts and Science was held in the office of the Dean at 4 p. m. on Monday, November 16th, 1959. Present were Dean Smith, Chairman), Professor Ryan, Dr. Hanson, Dr. Brodie and the Secretary, Dr. Blackley.

1. Minutes of the Meetings of April 6th, 1959 and October 5th, 1959:

The minutes of the meetings of April 6th, 1959, and October 5th, 1959, were approved as circulated.

2. Nominations:

1. A member for the Revisions Committee:

While the nomination of a member from the biological sciences to replace Dr. Nursall had been discussed at the previous meeting, no final decision had been reached. It was possible that this new member of the Revisions Committee might succeed Dr. Kreisel as Chairman, rather than one of the two other present members, when Dr. Kreisel retired as Chairman. For this reason, in view of his experience and dependability, Dr. Whyte of the Botany Department had been suggested, and Dr. Brodie had agreed to discuss the matter with him.

Dr. Brodie reported that he had done so and that Dr. Whyte had indicated his willingness to serve if asked. However, Dr. Brodie felt obliged to add that he did not feel that Dr. Whyte should be asked to serve: he had done his share of such committee work, at least for the present, and such an added task would be an imposition. He requested that alternatives to Dr. Whyte be more fully explored.

It was pointed out that the number of possibilities was restricted since by custom the required member must represent the biological sciences. One member was chosen to represent Division A, one to represent Division B, and one each to represent the physical sciences and mathematics departments and the biological science departments. Dr. Laycock, the member for Division B, perhaps was somewhat of an exception since his primary concern was with the C Division Geography offerings rather than the B Division offerings.

The Dean was asked to what extent he had made progress in his earlier expressed intention to attempt to cut down upon such work done in his own office and by Faculty committees composed of teaching staff members. He replied that while his views had not yet been embodied in a report, due to the pressure of more urgent business, it was his feeling that Faculties other than Arts and Science were loathe to give up such responsibilities.

Dr. Hanson wondered if much of this type of work might not be done by an official of the administrative type, such as Mr. Hawes in the Registrar's office, perhaps attached to the Dean's office. He also wondered how long, in a fast-growing university such as the University of Alberta, the continual scrutiny of students' records could be continued.

The Dean replied that in the 1960-61 estimates for his office, he had included a request for a purely administrative Faculty Secretary, as well as for an additional stenographer. These appointments would facilitate the discharge of the growing responsibilities of his office, and the Faculty Secretary could do much of the detailed work and fact-finding for Faculty Committees. He did not feel, however, that this University had reached a point where scrutiny of students' records was almost automatic (such as at Saskatchewan where the Board of Studies is simply handed a list of failures.)

Returning to the question of a member representing the biological sciences for the Revisions Committee, Dr. Brodie felt that Dr. Mackie of the Department of Zoology, while not as experienced as Dr. Whyte, appeared to be very conscientious, and suggested him for nomination. It was agreed to put Dr. Mackie forward as first choice, with Dr. Whyte as second.

2. Committee to study the Curriculum of the General Course:

The Executive Committee was reminded that at the November 2, 1959, meeting of Council, a committee was authorized to study the curriculum of the General Course, and to report back to Council. A considerable amount of "patching" work had been done recently to the patterns, but no comprehensive survey since the Walker Report had been made of them and their working in relation to the aims stated when they were set up. At the meeting of Council concerned the Dean had stated that, unless instructed otherwise, the composition of the committee he would assign to the Executive Committee.

At the outset of the discussion, it was felt by the members of the Executive Committee that, since it was likely that they would review the report obtained from this Committee, as individuals they should not be considered for membership. The one exception would be the Secretary, who, it was felt, would do a good deal of work for the Committee and therefore should be an ex officio member and Committee Secretary.

It was suggested that the "old hands" of the Pattern Committee should be included as a "must", that some attention should be paid to representation from the various Divisions, that a closely-connected "outsider" might be asked to assist in giving a balance to the Committee, and that some "old-timers" should be included.

It was agreed that Dr. Thomas and Dr. Elder could provide valuable experience from the Patterns Committee, that Dr. Hardy would bring the benefits of long-service at the University and would make the best chairman, and that Dr. Collier, who is a member of Faculty Council but also of the Faculty of Medicine, would be an admirable "outsider." There was some discussion on the possible inclusion of Dr. Keeping as another very senior member to assist Dr. Hardy in giving proper representation to long experience. However, it was felt by Dr. Wyman that, although Dr. Keeping certainly was an admirable choice, he was very occupied with staff pension work, and he suggested Dr. Robinson instead. It was agreed that Dr. Robinson would be a most suitable substitute despite his short time at this University. It was also felt that it would be desirable to include Dr. Folinsbee as a representative of a department that came nearest in the General Course to presenting a professional program. Many other names were suggested and discussed.

Finally it was agreed that the following should be approached to serve on this most important committee:

Dr. Hardy (Classics) - Chairman
Dr. Thomas (History)
Dr. Elder (English)
Dr. Collier (Biochemistry) or Dr. Pierce (Physiology)
Dr. Folinsbee (Geology)
Dr. Robinson (Mathematics)
Dr. Moore (Modern Languages)
Dr. Gunning or Dr. Davis (Chemistry)
Professor Mardiros (Philosophy)
Professor Davy (Political Science)
Dr. Newbound or Dr. Trainor (Physics)

The Faculty Secretary (ex officio)

There was some discussion on instructions that might be given to this Committee. It was felt that it might be wise to prepare for and present to them a resume of the setting up of the patterns, an analysis of to what extent the patterns thus set up have achieved the original aims, and information on other methods (such as the Saskatchewan "type" programs) in use at other Universities for the same or similar ends. The idea was put forward that the Committee might circularize the Faculty for suggestions.

Dr. Brodie wondered if the Committee would possess the authority to look into the possibility of a four-year program. The Dean replied that he felt that this was within its powers if that was its wish. In the past, Dr. Stewart had been opposed to the addition of a fourth year since, he felt, the facilities of the University were strained to accomodate the existing three-year program. Dr. Stewart did not feel that authorization could be obtained for the necessary staff, buildings and equipment for the fourth year. It was possible, the Dean thought, that Dr. Johns might be more sympathetic to a request for such an extension.

Various objections to a four-year program were noted by members who did not necessarily accept the validity of these objections. Students might go elsewhere for their University degrees. This idea had prevented Engineering from adding English and other subjects to their program for such additions would mean another year. A case might be made for the idea that the present three-year programs were ideal for people who wished to go forward for professional training, such as in Law, or Medicine, or even into Graduate work. The present General Course gave people three years to make up their mind on future training or what they wished to do. Three years were enough in terms of the students we get. The Dean noted that studies seemed to indicate that our freshmen are on about the level of American students who are preparing for four years of undergraduate work. One member wondered if such a four-year program were introduced, would it be four years for both the General and the Honors programs? If this were the case, a great increase in the number of those who wished to take the latter could be expected.

For precise terms of reference, it was decided to ask that the Committee consider the pattern system, the extent to which it has met the purposes for which it was designed, and to consider other alternatives.

3. Lottery to determine the time of retirement of regular members of the Executive Committee:

Members of the Executive Committee were reminded that, as initial appointees, only two of the present members would serve for four years, and that two must retire at the end of two years. According to the terms of appointment, "the selection of those retiring after two years will be made by lot." In the lottery which followed Professor Ryan and Dr. Brodie drew the ballots to retire at the end of the current academic session. They were reminded, however, that "retiring members may be re-appointed at the discretion of Council."

4. Credits for work at the British Universities Summer School:

The Secretary circulated to committee members a joint program of Summer School Courses to be held in 1960 by the Universities of London, Birmingham and Oxford, and the Scottish Universities. One, at Stratford-on-Avon, would be entitled, "Art, Literature and Music in England 1660-1780;" one at Oxford would be entitled, "England, 1870 to the Present Day;" and the one for the Scottish Universities entitled, "From Renaissance to Revolution," would be held at Edinburgh. He also presented a syllabus of "England, 1870 to the Present Day," as offered in 1959 by the University of Oxford. The Dean noted that these represented area studies rather than the type of course given at this university. Nonetheless he felt that those who were fortunate enough to be able to take such a course should be allowed to count it to the extent to which it could be used in the particular student's pattern. Those most likely to take such courses would be teachers seeking their B. A. after the B. Ed. It was his feeling that each of these courses was the equivalent of two Arts courses at our Summer School, although it might turn out that only one could be utilized in a student's particular program. This had been the case at the 1959 Summer Institute of Mathematics at which students had been required to take both courses offered, even if only one might be counted towards a degree program.

Dr. Brodie wondered if the authorization of credit in this Faculty for such courses, good as they appeared to be, was within the power of the Executive Committee. The Dean drew attention to Section C of the Committee's terms of reference, entitled, "Unexpected Developments." This stated that "when necessary, the Executive Committee shall act for Council between Council meetings, subject to subsequent ratification by Council." He then explained the need for action.

The Secretary of the Summer Schools recently had visited the University and Dr. Johns had expressed considerable interest in the courses offered, as had certain individual members of this Faculty. It had been suggested that the Alberta Teachers" Association might be interested in pushing these courses, perhaps even with a small bursary for those who attended them, provided that some assurance could be obtained that they could be utilized for credit on an Alberta degree. Information about the courses, as well as a statement about their status, would have to appear in the next issue of the ATA magazine to attract possible students for the 1960 sessions.

It was the general feeling of the Committee that these were excellent courses and that students should be encouraged to take them. While there might be some difficulty in fitting them into all programs, it was thought that they usually could be accepted as A or B options in the requirements laid down for the B. A. after the B. Ed. The Dean felt that up to two credits might be allowed a student completing a B. A. after a B. Ed. within the six senior course requirement if pattern needs could be met. He noted that the British Universities had undertaken to provide us, at the request of students, information that would enable his office to assign a grade for work done at these Summer Schools. The Committee agreed that such courses should be accepted for credit to the extent that they could be fitted into particular programs.

5. Action of Council regarding Supplementals, Promotion of students, and Limit on Programs of Students who fail to graduate in normal time:

It was stated by Dr. Brodie that he had heard nothing except dissatisfaction expressed in his own department on the decision taken by Council to abolish the supplemental privilege in all but the first year. He himself, unfortunately, had been unable to be present at that particular meeting. Others felt that the decision was a very hasty one and regretted that they had not had a longer time to collect their thoughts and to express them.

The Secretary laid before the members of the Committee a notice of motion prepared by Dr. Newbound of the Physics Department, which would be presented at the December 7th, 1959, meeting of Council. This motion Dr. Thomas of the History Department had agreed to second. It read as follows:

"In view of the difficulty experienced at the November meeting of the Arts and Science Council in dealing with certain important matters, and also in view of a possible early implementation of a new scheme for dealing with student ratings on examinations, I wish to give notice of motion as follows:

" 'That a committee be set up by the Faculty of Arts and Science to consider the following related matters:

(a) Limit on programs of students who fail to graduate in the normal time.
(b) Promotion regulations in the Faculty of Arts and Science.
(c) In the event that General Faculty Council approves a letter-grade system of evaluating student performance, the evaluation of the effect of this on the Faculty of Arts and Science, particularly with regard to (a) and (b) above.'

"Further, I wish to move that, since limitations on supplemental examinations is a related topic, the motion passed on this subject at the November meeting of the Council of the Faculty of Arts and Science be not forwarded

> to General Faculty Council until the above Committee has made its report. The Committee also would investigate and report upon the effects of the implementation of this motion."

Commenting upon the background of the recommendation to General Faculty Council passed by the Arts and Science Council, the Dean said that one of the members of the Department of History had written to him this fall a letter on the subject of supplementals. In this letter a good deal of dissatisfaction was expressed about supplementals - on the nuisance of marking them and the standards of the system which allowed them to be granted in such profusion. The suggestion was made that students, as at the University of Manitoba, be limited to five supplementals for all purposes.

To this he had replied that any review of the supplemental privilege must be closely linked to other related matters, such as the promotion policy within this Faculty. He had urged strongly that the matter of supplementals be left in abeyance until the promotion policy had been closely studied.

Despite this recommendation, and presumably under considerable pressure from members of his Department, including the writer of the letter mentioned above, Dr. Thomas had submitted a motion to Council recommending that General Faculty Council consider the abolition of the supplemental privilege for Arts and Science courses in the Summer School and Evening Credit Program, but suggesting only a reduction of the supplemental privilege in these courses for the regular session. The Dean did not feel that a case had been established for such a proposed recommendation and, as the members of the Committee all knew, the amendment to Dr. Thomas' motion finally passed by Council departed radically from that original motion. The amendment passed recommended to General Faculty Council the abolition of the supplemental privilege for all students in the Faculty of Arts and Science except for those in the First Year.

It was the feeling of the Committee that Dr. Newbound's proposed motion was a sensible one and that there was too close a link between the abolition of supplementals and the promotion policy for the first to be recommended without a thorough investigation of the second. Dr. Newbound's proposed motion, if approved, would provide such an investigation.

The Dean then stated that he would submit to the Registrar, for inclusion in the agenda of the next meeting of General Faculty Council, the recommendation that had been passed by the Arts and Science Council. However, on the basis of Dr. Newbound's motion he would request that Deans' Council, which approves this agenda, not place this recommendation as yet upon that agenda.

6. Calendar Changes:

(a) Proposed four-year program for the degree of Bachelor of Fine Arts in Drama:

The Committee considered the following program proposed by Professor Peacock:

First Year	Drama 250 - Acting Technique and Production		3-1;3-1
	Drama 360 - Voice and Speech		3-1;3-1
	Drama 270 - Stagecraft		2-2;1-3
	English 200		
	French 200		
	Physical Education - Fencing		
Second Year	Drama 350 - Senior Acting Technique		2-4;2-4
	Drama 460 - Advanced Voice and Speech		3-1;3-1
	OR		
	An approved Arts and Science option		
	Drama 300 - History of the Theatre		3-0;3-0
	OR		
	Drama 400 - The Modern Theatre		3-0;3-0
	Drama 390 - Production		0-4;0-4
	English 332		
	(a) An approved Arts and Science option, preferably a Senior French course		
Third Year	Drama 370 - Design for the Theatre	Two of	2-3;2-3
	Drama 450 - Styles of Acting		2-3;2-3
	Drama 480 - Directing Techniques		3-2;3-2
	Drama 300 - History of Theatre		3-0;3-0
	OR		
	Drama 400 - Modern Theatre		3-0;3-0
	Drama 490 - Advanced Production		0-4;0-4
	(b) Psychology 202, or 340 or 382		
	(c) An approved Senior Arts and Science Option		
Fourth Year	One of:		
	Drama 550 - Advanced Acting		2-4;2-4
	Drama 580 - Advanced Directing		2-4;2-4
	Drama 470 - Advanced Design and Technical Practice		2-4;2-4
	A Senior Drama course		
	An approved Fine Arts option		
	Philosophy 350		
	An approved Senior Arts and Science course in the Department in which (a), (b) or)c) was taken.		
	Drama 590 - Production Thesis		0-6;0-6

5. The Dean explained to the Committee that this proposed program was similar to the Bachelor of Music program in that professional training not to be found in the related B. A. pattern was to be provided by it. Our B. A. in Drama graduates, Professor Peacock felt, were seriously handicapped in taking further acting training, by the absence in the Drama pattern of many courses that are professionally important. The proposed program was designed to provide such courses and had in mind the student who wishes to become an actor: it would not be a program taken by those who might desire a general education with some emphasis upon Drama.

Some of the Committee felt that the suggested program was of the diploma variety, rather than a degree program. The specialization was too heavy to provide a general education. While there existed the possibility that science courses could be taken, for example, there was certainly no compulsion that they must be taken. As to the similarity of this program with the B. Mus. program, there were reservations in the minds of some committee members about the B. Mus. program. Moreover, for admission the latter required years of professional training in one area and this would not be the case for the Bachelor of Fine Arts in Drama program.

All existing Fine Arts degree programs, one member felt, were really on the fringe of the normal degree programs. The proposed new one would depart even from that fringe. If an individual wished to be an actor he should take professional training,but should the University give a degree for such training? This member felt that this should not be the case. The proposed program reminded him of the Education programs before the thirteen Arts and Science courses were added as a core.

The Dean informed members of the Committee that the Fine Arts Department already had, or had in mind, the following Art programs:

1. The Diploma Course in Art
2. The B. A. Pattern in Fine Art
3. The Bachelor of Fine Arts in Painting

The latter would be a professional course on a higher level than the Diploma Course, but closer to the B. A. Fine Arts pattern than the Diploma. It would be something like the program under discussion, and a decision on the proposed Bachelor of Fine Arts in Drama would influence a later decision on a Bachelor of Fine Arts in Painting.

While it was true that the Bachelor of Fine Arts in Drama would not be the same as the Bachelor of Arts in the Fine Arts Pattern, the Committee felt that the public would assume them to be the same. One satisfied the general idea of a degree program, but the other would not. It agreed, therefore, that the Committee would pass on to Council without recommendation, the proposed program. It was also agreed not to consider certain proposed new courses in Drama or desired amendments to existing Drama courses, since these had been drafted with the suggested program for a Bachelor of Fine Arts in Drama in mind, and had no meaning without the approval of this program.

(b) Philosophy:

The following courses and changes of course description were considered:

New Courses:

Philosophy 260 - Introduction to Logic and the Theory of Knowledge 3-0;3-0

This course introduces the student to the various types of rational argument and proof, and subsequently undertakes an elementary examination of theories of meaning and truth. Its general purpose is to show how to distinguish between sound and unsound beliefs and thus to serve as an introduction to philosophical method.

Change of Description:

Philosophy 240 (40) - Introduction to Western Philosophy 3-0;3-0

This course is designed to introduce the student to the main problems and theories that have dominated philosophical thought in the Western world, through the study and discussion of selected philosophical classics. Emphasis will be placed both upon a sound acquaintance with the main outlines of our philosophical tradition and upon the ability to handle philosophical ideas independently. To this end both lectures and discussions will form part of the student's training.

Reading will be selected from the following: Plato, Republic; Aristotle, Ethics; Lucretius, De Rerum Natura; Fremantle (ed.), The Age of Belief; Descartes, Meditations; Burtt (ed.), The English Philosophers from Bacon to Mill.

The Dean explained that the proposed Philosophy 260 was a course in traditional logic. The Department, over the past years, had converted its old traditional logic course into one on scientific logic and the proposed new course was really a reinstatement of the course in question. He felt that either a course in traditional logic or a course in the History of Philosophy could be considered a good starting point for studies in Philosophy. The Secretary suggested that this type of course might appeal to the students in the first year of the combined B.A. L.L.B. course. It was agreed that this was so and that, at a later date, the question of modifying the first year of this program might be considered to allow a student to take either Philosophy 240 or the proposed Philosophy 260.

The Committee approved the suggested new courses and course changes for the approval of Council.

(c) Psychology:

The following new courses in Psychology were considered:

Psychology 336 - Individual Differences 3-0;3-0

A survey of the biological and social conditions contributing to variations among individuals; methods for describing individuality.

Prerequisite: Psychology 202 (40), or consent of instructor.

Psychology 352 - Developmental Psychology 3-0;3-0

A study of behaviour as it is related to normal development and aging.

Prerequisite: Psychology 202 (40) or consent of instructor.

Psychology 364 - Learning 3-0;3-0

A study of acquisition, retention and utilization of learned behaviour.

Prerequisite: Psychology 202 (40) or consent of instructor.

Psychology 534 - Experimental Design 3-3;3-3

Methodological techniques and conceptual analysis in the planning, execution, and evaluation of psychological research.

Prerequisite: Mathematics 305, Psychology 334 and Psychology 460 (59), or consent of instructor.

Psychology 580 - The Study of the Individual 3-0;3-0

A methodological course involving the application of a wide variety of psychological techniques to the intensive study of the individual.

Prerequisite or co-requisites: Psychology 382 (62), Psychology 430 (63), Psychology 536 (107)

The Committee was informed that the courses proposed represented a natural development of the Department. Psychology 352 was somewhat akin to a course in Child Psychology, although it contained a little more than Child Psychology itself and was more suitable for Departmental needs than courses in this area offered by the Faculty of Education.

Questions were asked as to the prerequisite of "Psychology 202 or the consent of the instructor,"/ in the proposed courses numbered 336, 352 and 364. It was pointed out that "consent of the instructor" was something fairly common. Dr. Lambert for example, had this for his course in Scientific Logic as an alternative to a previous course in Philosophy. In this case Dr. Lambert was able to assure himself that people without such a previous philosophy course had compensations in their academic background that would offset this lack.

One member wondered if Psychology 202 could be a true prerequisite if it could be waived in each of these new courses. The case of the Scientific Logic course did not cover such a wholesale approach. It was agreed that Dr. Hanson should follow up this matter.

Dr. Hanson reported later that the Department was thinking in terms of accepting as a prerequisite in some instances for these courses, either Psychology 212 or 220. It agreed to amend the prerequisite in each case to read:

Psychology 202 (40); or, with consent of instructor, Psychology 212 (42) or 220 (47)

The Committee approved the changes above for transmission to Council.

(d) Sociology:

The Committee approved the addition of the prerequisite "consent of the instructor" to Sociology 310 (Social Science Research Methods) for the consideration of Council.

(e) Modern Languages:

French:

The Committee considered the following change in course description:

French 350 (50)

The study of representative literary works from the Middle Ages to the present day; oral and composition work based on the texts studied. The principal authors are Villon, Ronsard, Moliere, Voltaire, Baudelare, Maupassant and Camus.

Not open to Honors students in French or students with a first class mark in French 200. Open to B. Ed. French majors.

Prerequisite: French 2 or 200 or a first-class mark in French 1 or 100.

(Description reworded; condition added.)

The Committee was informed that French 350 was a course containing more work in grammar and composition than would be found in one of the senior literary courses. It was especially taken by Education students for this attention to grammar and composition. The Department felt, however, that there should be restrictions upon its use. It should not be allowed in an Honors program and even in the programs of all pattern students.

It was the opinion of the Committee that such matters should not be spelled out in such detail and Professor Ryan was asked to speak to the Department concerned. He reported that the Department was prepared to drop the proposed "condition" and substitute a final sentence in the description, which would read, "An intermediate course."

With this change, the Committee agreed to send forward the desired amendment, as well as the new course description for French 375 given below:

French 375 (60)

This course deals with the definition and history of realism, the development of the novel: Stendhal, Merimee, Balzac and Flaubert, and the poetry of Baudelaire.

(Description reworded.)

(f) German

Considerable discussion took place over the changes in prerequisite desired for German 200 and German 310, as given below:

German 200

Change in prerequisite only; new prerequisite to read:

Matriculation German or its equivalent. (Placement test.)

It was the feeling of the Committee that, again, here was a matter that should not be spelled out and recommended the deletion of "Placement Test." Professor Ryan, after consultation with the Department, stated that the Department would agree to this deletion provided that the sentence "A placement test may be required" be added to the general preamble on German courses.

Further discussion made clear the opinion of the Committee that, since placement tests could be used for almost all subjects, this possibility should either be noted for every subject or appear in the general regulations. The Secretary prepared the necessary amendments to the general regulations, since this was felt to be the better approach, for presentation to Council so that references to placement tests under particular subjects would be unnecessary.

The desired amendments to German 450, German 550-695, and German 699, as given below, were approved and sent forward to Council:

German 450

Delete first line page 128.

German 550 to 695

In all courses from German 550 to 695, the hours of instruction to be changed from (2-0;2-0) to (3-0;3-0).

German 699 Conference Course

An honors or graduate course designed to meet the needs of individual students. It may include the detailed study of an author, period, genre, or any literary problem not dealt with in the honors or graduate courses listed above.

(Description added.)

It was also agreed to approve the insertion under "B" German"(on page 126 of the calendar) before the last line "All senior, honor and graduate courses from German 370 on will be conducted in German."

(g) Russian:

The following course changes were considered by the Committee:

Russian 210 (1b)

This course is designed to meet the needs of honors students in the science departments, students of the Faculties of Engineering, Agriculture, Dentistry, Medicine and Graduate Studies of any year who require a reading knowledge of Russian scientific literature. Students will be given credit in this course but are recommended to take the sequent course, Russian 310, in which advanced scientific texts are read. Science students in the general course may also register in Russian 210 but will be required to complete Russian 310 before credit will be granted in Russian 210.

Graduate students, who require a reading knowledge of Russian, are advised to register as special students in this course, in which case the instructors will agree to examine them for the Ph. D. foreign language requirement at any time of the year.

(Description reworded; second paragraph added.)

Russian 300 (40a). Second Year Russian (Arts Section)

Advanced Russian grammar, composition and oral practice based on selected texts of Russian classical and contemporary literature.

(Title and description reworded.)

Prerequisite: Russian 1 (a) or 100.

Russian 310

This course is a continuation of Russian 210. Russian scientific articles of current interest will be provided, discussed and translated. The course will give students a sufficient command of the language to enable them to translate advanced Russian texts in their fields of study.

(Description rewritten.)

Russian 380 (115 d)

Change in prerequisite only; new prerequisite to read:

One senior Russian course. (Delete: or a first class mark in Russian 1 or 100.)

It was felt that the paragraph on graduate students contained in German 210 was not a matter for the Arts and Science Council. Professor Ryan was asked to so inform the Department of Modern Languages, which agreed to the deletion.

A long discussion followed on the general suitability of courses in scientific language such as Russian 210 (described as "tool" courses) as approved Special A or B options for students in Science patterns. It was the argument of the Department of Modern Languages that these courses gave a competence in a foreign language and should have such a status. The opinion, however, was advanced that these were taken by students who desire only to read scientific periodicals and resist every attempt to depart from a purely scientific approach.

It was also felt that, while a good deal of scientific material has been collected by the Department, there is not an instructor here, good though they undoubtedly are, that can teach technical German or Russian, or can themselves begin to translate a scientific paper. The scientists present felt that a good course in literary German was the best preparation with the student working up the scientific side on a non-credit basis. The Committee was informed that such courses at present were allowed only as the third-year open option and that the whole situation must be reviewed in the not too distant future.

In the meantime, the Committee agreed to forward the course changes as approved to Council.

The following proposed new courses in Russian were considered next:

Russian 320. Readings in Russian Literature 3-0;3-0

Reading and literary study of one major classical novel, one play by Chekhov, and selected poems. Composition based on these works.

Corequisite: Russian 300.

(A new course on the second year level, replacing 380 as a second year course.)

Russian 350: Russian Literature in English 3-0;3-0

A study of major Russian authors in the 19th and 20th centuries with special emphasis on the psychological and social significance of their works in the large context of general Russian cultural evolution. This course is designed for students who are interested in comparing Russian literature with other major literatures and as a general option.

Not open to honors students in Russian.

(A new course. Purpose: The need for understanding Soviet (and Russian) culture, past and present, is self-evident. Because of a unique intimacy from the beginning between Russian literature and Society, this literature provides a peculiarly valuable introduction to almost every aspect of the culture. Moreover, a great deal of material is available in translation, hence accessible to students outside the field of Slavonic studies. The purpose of this course, therefore, is to acquaint non-specialists with several great Russian literary works, first for their intrinsic value and second for the considerable light they shed on Russian life and institutions.)

The Dean explained that Russian 350 would be taught by a new member of the Department of English whose Ph. D. was in Russian Literature.

It was the feeling of the Committee that "Readings in Russian Literature" was not a very suitable title. Professor Ryan agreed to speak to the Department, who substituted, "Selected Prose, Poetry and Drama of the Nineteenth Century."

(h) Spanish:

The Committee considered the proposed new course in Spanish:

Spanish 320. Readings in Spanish Literature and Composition.

A study of modern Spanish and Latin American prose. Composition based on these works.

Corequisite: Spanish 300.

(A new course on the second year level).

It was felt by the Committee that this, like Russian 320, had an unsuitable title. Accordingly Professor Ryan was instructed to raise the matter with the Department, which submitted the following new title and course description:

Spanish 320. Contemporary Prose and Composition 3-0;3-0

Readings and literary study of selected Spanish and South American texts; written reports on these works.

Corequisite: Spanish 300.

(i) Ukrainian:

The following course changes and the new proposed course, Ukrainian 360, were considered:

Ukrainian 300. Second Year Ukrainian 3-0;3-0

Advanced Ukrainian grammar, composition, and oral practice based on selected texts of Ukrainian classical and contemporary literature.

Prerequisite: Ukrainian 100 or the instructor's consent.

(Title, description and prerequisite reworded.)

Ukrainian 360. Survey of the History of Ukrainian Literature since the Eighteenth Century. 3-0;3-0

Historical survey of Ukrainian literature from Kotliarevsky to the present. Cultural background, literary works and major writers. Reading of selected texts, with composition based on short stories. Advanced elements of Ukrainian language.

Prerequisite: Ukrainian 300.

(Not offered in 1960-61). (A new course).

These were approved for forwarding to Council but one member wondered how many courses in Ukrainian could be offered before "you repeat yourself", in view of the limited nature of Ukrainian literature.

Professor Starchuk had proposed that the introductory statement under Ukrainian should be amended to read as follows:

> Ukrainian may be begun at the University. It is credited towards a degree in the Faculty of Education, in the Faculty of Arts and Science in the honors program in Modern Languages as a second Slavonic language and in the Foreign Languages pattern as an alternative to Russian, or in other programs by the consent of the department concerned.

The Committee felt that this was a matter for the Patterns Committee. It was pointed out, however, that the clause "or in other programs by the consent of the department concerned" was contrary to the recent decision of the Faculty of Arts and Science on the status of Ukrainian.

(j) English:

The Secretary pointed out that a traditional course in English literary criticism must begin with Aristotle, since Aristotle's ideas were used as a basis for literary criticism in England. The Committee thereupon approved the following new English courses to go forward in their report to Council:

English 344. Seventeenth Century Poetry and Prose 3-0;3-0

The literature of the seventeenth century, studied in the light of the intellectual development of the period.

English 393. The History of Literary Criticism 3-0;3-0

A survey of the major developments in literary criticism from Aristotle to the present time.

(k) Music:

In considering the Music courses given below, one member asked why Music 405 was a music course rather than a Physics course. The Secretary replied that he had raised that point with Dr. Scott, who felt that the course did not need to be taught by a physicist and that he proposed to do so only because he was available and interested. The wishes of the Music division were thereupon endorsed by the Committee and sent forward to Council.

~~(e)~~ Music

(i) New courses:

Music 405. Acoustics of Music (1-0; 0-0)

A course in acoustics illustrating the basic principles of the science of sound and designed especially for musicians.

Textbook - Bartholomew - Acoustics of Music

(This course will be a part of the third year program for B. Mus. students and will be taught by Dr. D. Scott of the Physics Department.)

Music 500. Music of the Baroque (3-0; 3-0)

An advanced course in the study of styles, forms and literature of the Baroque Era (1600 - 1750).

Textbook - Bukofzer - Music in the Baroque Era

(This course will accomodate students who may have the equivalent of one of the required courses in the Music patterns so that the prescribed number of Music courses may be taken at the university level. Professor Eaton would prefer to have the course bear the number 500 to keep it in line with the 300 and 400 Music history courses without intending that it be considered of Honors weight. The General Faculty Committee on course-renumbering had such courses in mind when it suggested that courses in the 500 range could be considered "advanced, honors or graduate courses.")

Music 100. An Introduction to Concert Music (3-0; 3-0)

Members of the Music Division

An elementary course in the History and appreciation of concert music. Composers, styles and musical forms of the standard repertory will be studied. Attendance at prescribed concerts and rehearsals will be arranged.

No prerequisite. Textbook: Stringham, Listening to Music Creatively (2nd edition).
(This course is designed for those with no real musical background and might be considered on the level of French 100.)

(ii) Change in prerequisites:

Music 200.

Add as prerequisite:

(a) Western Board of Music Grade III theory or equivalent
and
(b) Western Board of Music Grade V practical or equivalent.

(This change is designed to bring the regular session course into line with the Summer School course which demands as a prerequisite some theory and some practice. Music 100 will not be accepted as a prerequisite for Music 200.)

(1) Chemistry, Mathematics, Biochemistry, Physics and Zoology:

The course changes and new courses suggested by the Departments of Chemistry, Mathematics, Biochemistry, Physics and Zoology (placed together for the sake of economy) were discussed and approved by the Committee for forwarding to Council. Dr. Brodie, unfortunately, was not present for the discussion on the changes in Zoology. These, as one member noted, appeared to be in order but were numerous. If a new Head for the Department of Zoology was to be appointed, might he not wish to reconsider all the offerings of the Department? The Dean pointed out that the new courses represented the interests of the present department which would not be changed by such an appointment. Moreover the changes would allow more flexibility in Honors programs.

~~(b)~~ Chemistry

(i) Course changes:

Chemistry 230 and Chemistry 250: Change prerequisites to read: "Chemistry 1 or 130, or Chemistry 30 in Grade XII or its equivalent."

Chemistry 312: Change time from (2-6; 2-6) to (3-6; 3-6).

Chemistry 550: Change prerequisites to read: Chemistry 39 or 250, 42 or 350, 58 or 312, and 370 or 53, or 372 or 54.

(ii) New courses:

Chemistry 611. Analytical Chemistry (0-0; 3-0)

The lectures of Chemistry 511.

Chemistry 631. Inorganic Chemistry (3-0; 0-0)

The lectures of Chemistry 531.

Chemistry 651. Organic Chemistry (3-0; 0-0)

The lectures of Chemistry 550.

Chemistry 653. Organic Chemistry (0-0; 3-0)

The lectures of Chemistry 550.

Chemistry 671. Physical Chemistry (4-0; 0-0)

The lectures of Chemistry 372 plus one hour a week of special topics.

Chemistry 673. Physical Chemistry (0-0; 4-0)

The lectures of Chemistry 372 plus one hour per week of special topics.

(These courses are designed only for graduate students to be used to improve the background of those who do not obtain a satisfactory grade on the department's graduate placement examinations. They will use the lectures of existing courses but not the laboratories. The courses 671 and 673 also will have one hour of special lecturing per week. A student registered in Chemistry 651 and 671 may or may not be required to continue on to 653 and 673 depending on his performance.)

~~(c)~~ Mathematics

(i) New courses:

Mathematics 552. Advanced Electro-Magnetic Theory (2-0; 2-0)

Mathematics 651. Advanced Relativity Theory (2-0; 2-0)

(Retroactive approval is sought for these two reading courses, one of which is being given in Edmonton and one in Calgary. The latter course is for a Calgary staff member who wishes to use it for transfer of credit on a graduate program being taken elsewhere.)

~~(d)~~ Biochemistry

(i) New courses:

Biochemistry 501. Advanced Laboratory (0-3; 0-3)

Staff

A laboratory course to accompany the graduate lecture courses offered to fourth year Honors and to graduate students. The emphasis will be on standard methods and techniques as applied to biochemical research. The actual course content may depend upon the lecture courses selected and the interests of the students.

Prerequisite: Biochemistry 300 or 350.

Reference texts will include: Cowgill and Pardee, Experiments in biochemical research techniques; Unbreit, Manometric techniques; Strong, Biochemical techniques: a laboratory manual.

Biochemistry 541. Biochemistry of Lipids (3-0; 0-0) or (0-0; 3-0)

E. T. PRITCHARD

The structure, metabolism, and functions of lipids will be discussed. The emphasis will be on mammalian lipid metabolism.

Prerequisite: Biochemistry 300 or 350.

(ii) Changes in description:

Biochemistry 551. (105) Advanced Plant Biochemistry (3-0; 0-0) or (0-0; 3-0)

MARY S. SPENCER

Selected topics in plant metabolism, with emphasis on the comparative biochemistry of respiration and carbon assimilation. Evaluation of recent research and of methods of investigation in these fields.

Prerequisites: Biochemistry 71 or 350 or 50 or 300.

Biochemistry 571. Recent Advances

Delete last sentence of course description.

64c

~~(i)~~ Physics

(i) Calendar changes:

Mathematics 201 or equivalent is prerequisite to all senior courses in Physics.

Physics 240. Physical Properties of Matter, Heat and Sound.

Add: Corequisite - Mathematics 201.

Physics 360. Optics and Mechanics

Add: Prerequisite - Physics 238 or 240 or 242, Mathematics 201 or 202.

Physics 614. Advanced Thermodynamics and Statistical Mechanics

Hours to be (2-0; 2-0).

Physics 650. Special Topics in Theoretical Physics

Hours to be (2-0; 2-0).

Physics 670. Quantum Mechanics.

Hours to be (3-0; 3-0).

(ii) New courses:

Physics 242. Physical Properties of Matter, Heat and Sound (3-2; 3-2)
G. D. Garland

This course covers the same topics as Physics 240, but with a more analytical approach, suitable for Honors students. Textbook: Lemon and Ference, Analytical Experimental Physics.

Corequisite: Mathematics 201.

NOTE: This course is required for pre-honors students in Physics, Physics and Geology, Mathematics. Other students may be admitted by permission of the instructor.

Physics 640. Advanced Electromagnetic Theory (2-0; 2-0)

H. Schiff

Physics 654. Applications of Group Theory to Quantum Mechanics (2-0; 2-0)

L. E. H. Trainor

64 d

(i) Course deletions:

Zoology 460 Taxonomy 3-3;3-3

Zoology 568. Taxonomy of Birds and Mammals of the World: Life Histories of American Species.

(ii) Changes in Description:

Zoology 220. Elementary Zoology (3-3; 3-3)

Animal organization; comparative morphology; essentials of histology; principal phenomena of distribution, behavior, ecology, reproduction and development; evolution, variation and heredity.

(Reworded)

Zoology 406. Ornithology (0-0; 3-3)

Origin, distribution, anatomy, taxonomy, behavior and ecology of the birds of the world, with emphasis on the birds of Alberta.

Prerequisite: Zoology 51 or 300.

(New time, reworded.)

Zoology 410. Embryology (3-3; 0-0)

Development of selected types, chiefly vertebrate.

(New time, reworded.)

Zoology 440. Comparative Animal Physiology (3-3; 3-3)

Organization and diversity of animal functions; nervous and endocrine integration; metabolism; reproduction, growth and metamorphosis.

Prerequisites: Zoology 51 or 300; 52 or 350. Zoology 350 may be taken as a corequisite with the instructor's permission.

(Reworded.)

Zoology 521. Mechanisms of Evolution (0-0; 3-0)

Selected topics dealing chiefly with current concepts of organic evolution.

Prerequisites: Zoology 51 or 300; 52 or 350; Genetics 51 or 451.

(New time, reworded.)

Zoology 529. Special Problems in Zoology (3 hours either or both terms)

(New time.) (Approved this year.)

Zoology 540. Environmental Physiology (1-5; 1-5)

A special topics course designed for the study of physiological adjustment of animals to the effect of environmental variables.

Prerequisites: Zoology 51 or 300; 52 or 350; Zoology 440 or Physiology 361; Biochemistry 300. Biochemistry 300 may be taken as a corequisite with the instructor's permission.

(Reworded.)

Zoology 562. Conservation Topics (1-0; 1-0)

(New time)

Zoology 566. Animal Behavior

(Delete present description.)

Zoology 580. Histology and Microtechnique (3-3; 3-3)

The essentials of histology are presented from a comparative standpoint, materials being drawn from all levels of the animal kingdom. Theoretical and practical instruction is given in fixation, staining, dissociation, microscopy, photomicrography and graphic reconstruction. Students make and study their own slides.

Prerequisites: Zoology 51 or 300; 52 or 350.

(New time, reworded.)

(iii) New courses:

Zoology 408. Mammalogy (3-3; 0-0)

Origin, relationships and structure of mammals. A survey of the families of living mammals; past and present distribution of important groups; recognition and life histories of Alberta forms.

Prerequisite: Zoology 51 or 300.

Zoology 412. Experimental Embryology (0-0; 3-3)

Zoology 452. Principles of Parasitism (3-3; 0-0)

Host and parasite adaptations; relationships with other forms of mutualism; effects of parasitism on the host and the parasite; parasitism and disease.

Prerequisites: Zoology 52 or 350. Zoology 350 may be taken as a corequisite with the instructor's permission.

Zoology 462. Terrestrial Ecology (0-0; 3-3)

The principles governing the relationships of terrestrial animals to their environment and to one another; emphasis is placed on field work and research techniques.

Prerequisites: two courses in Zoology.

Zoology 464. Limnology (3-0; 0-0)

Physical and chemical characteristics of lakes; qualitative and quantitative techniques for determination of planktonic, benthic and fish production; principles of lake management.

Prerequisites: Zoology 51 or 300; 52 or 350.

Zoology 520. Seminar in Zoology (1-0; 1-0)

Required of all fourth year Honors and Graduate Students.

Zoology 555. Wildlife Parasitology (0-0; 3-3)

Morphology, life cycles, pathology and control of animal parasites of fish, birds and mammals, with special reference to forms found in Alberta game.

Prerequisites: Zoology 55 or 406, 408, and 452; or Zoology 55 or 406, 408, 350 and instructor's permission; or Zoology 51 or 300, 452 and instructor's permission.

Zoology 565. Principles of Conservation and Wildlife Management (3-3; 3-3)

Management of upland and migratory game birds, big game and fur-bearing mammals; discussion of legal aspects of conservation and the role of sanctuaries, National Parks and wilderness areas.

Prerequisites: Zoology 55 or 406, 408. These may be taken as corequisites with the instructor's permission.

Zoology 625. Field Course in Zoology.

A survey of the terrestrial and freshwater fauna of Alberta alternates yearly with a survey of the marine and littoral fauna of part of the Pacific coast. The course lasts two weeks and follows the spring examination. Both parts are required for the Honors B.Sc. in Zoology and should be taken in the third and fourth years.

Prerequisites: Zoology 51 or 300; 52 or 350.

7. Petitions

(a) Hans Ernest Von Stackelberg:

Mr. Von Stackelberg, a transfer student from the University of Saskatchewan, needs for his degree three senior History courses and two sciences, and was so informed by a letter from the Secretary. Unfortunately, he registered in Geography 300 for one of the sciences. Being unfamiliar with our regulations, he thought that this was a science course, and asked that he be allowed to graduate by his present registration.

It was the decision of the Executive Committee to uphold the petition of Mr. Von Stackelberg, since it was now too late to transfer him to a suitable science course. While the University does place the ultimate responsibility for registration upon the student, it was felt that Mr. Von Stackelberg should not be made to suffer for his incorrect registration, since it was approved by a staff member of the University.

(b) Thomas Corbet Parker:

Mr. Parker, the subject of a long discussion in the October meeting of Council, had been informed that this, his sixth session, would be the last one in which he would be allowed to attempt to complete the requirements for his B. Sc. in the Geology pattern. He now was considering withdrawal to accept a lucrative position that would not be available at the end of session. If he did so, he wished to know his status at the University.

It was the decision of the Committee that Mr. Parker's withdrawal would mean that he must abandon all hope of finishing his degree. He would not be granted readmission at some future date, nor would he be allowed supplementals on courses already completed, for the purposes of obtaining the necessary second-class standings required for graduation. The Secretary was instructed that, in so informing Mr. Parker, he should urge Mr. Parker to withdraw, since his hopes of obtaining a degree were very slim indeed.

The meeting adjourned at 7.10 p. m.

Douglas E Smith
Chairman

J. D. Blakely
Secretary

The seventh meeting of the Executive Committee of the Faculty of Arts and Science was held at 10.30 a. m. on Monday, December 22nd, 1959, in the office of the Dean of Arts and Science. Present were Dean Smith (Chairman,) Professors Brodie, Hanson, Ryan and Wyman, and the Faculty Secretary.

1. Minutes of the meeting of November 16th, 1959:

The minutes of the meeting of November 16th, 1959, were approved as circulated.

2. Course Changes:

(a) Mathematics:

The Department of Mathematics desired the following changes:

Delete:

Mathematics 420 (57) - Advanced Calculus (3-0;3-0)
Mathematics 350 (54) - Introduction to Modern Algebra (3-0;3-0)
Mathematics 440 (61) - Foundations of Analysis

Add:

Mathematics 421 - Differential Equations (2-0;2-0)
Standard forms. The general linear equation. Laplace transforms. Systems of equations. Bessel and Legendre equations. Some partial differential equations. Fourier series.
Textbook - L. R. Ford, Differential Equations (McGraw-Hill).

Mathematics 422 - Advanced Calculus (2-0;2-0)
Series. Uniform convergence. Functions of two or more variables. Vector analysis. Line and surface integrals. Multiple integrals.
Textbook: Courant, Differential and Integral Calculus, Vol. II (Blackie.)

Mathematics 425 - Modern Algebra (2-0;2-0)
Integral domains. Congruences. Fields. Real numbers. Polynomials. Complex numbers. Groups. Vector spaces. Matrix algebra. Linear groups.
Textbook: Birkhoff and MacLane, A Survey of Modern Algebra (Macmillan Co.)

Change:

(3-0;3-0)
Mathematics 540 (101) to read: Theory of Functions of a Real Variable. Introduction to set theory. The number system. Real and complex numbers. Cardinal and ordinal numbers. Stieltjes integrals. Measure theory. Lebesgue integrals.
Prerequisites: Mathematics 422 and 425, or equivalent.

Professor Wyman explained that Mathematics 420 and 350 (for Honors students) would be replaced by the proposed new courses Mathematics 421, 422 and 425. Instead of two courses of three hours a week, Honors students would now take three courses each of two hours a week. He stated that this change was desirable since it would enable the concentration in one course of all the material relating to a particular area of study. A member deplored the tendency, however, of two hour courses to become three hour courses after a short period of existence.

It was pointed out by the Dean that Mathematics 420 appeared in both the Physics and the Chemistry patterns. Professor Wyman stated that the Engineering counterpart of Mathematics 420, Mathematics 404, would remain unchanged and it would be possible to use this course for Chemistry and Physics pattern students. He agreed to see if these departments would have any objection to this procedure. Since this would be a pattern change he would also phone the Chairman of the patterns Committee.

Professor Wyman explained that Mathematics 440 (Foundations of Analysis) had been a particular favourite of Dr. Sheldon, a former head of the Mathematics Department. Now, in terms of modern Mathematics, much of the material in this course was obsolete. What was still relevant had been embodied into the change proposed for Mathematics 540.

The Committee approved the changes desired, subject to the approval of the Departments of Physics and Chemistry, and of the Patterns Committee, for the substitution of Mathematics 404 for Mathematics 420 wherever it appeared in B.Sc. patterns.

(b) Geology:

The Department of Geology desired the following changes:

Geology 502 (102) - Sedimentary Petrology & Sedimentation (2-0;0-4)
J. F. Lerbekmo.
Recent papers on sedimentary topics will be discussed at a weekly seminar during the first semester. Students will undertake a supervised laboratory problem in sedimentation or sedimentary petrography in the second semester.
Prerequisite: Geology 464 and consent of instructor.

Geology 507 (107) - Igneous and Metamorphic Petrology (0-0;3-3)
R. A. Burwash
Discussion of classic and recent papers dealing with genesis of igneous and metamorphic rocks. Laboratory study of representative suites of thin sections.
Prerequisite: Consent of instructor.

New courses:

Geology 461 - Geology of Petroleum, Natural Gas and Coal (3-0;0-0)
J. F. Lerbekmo
Classification, mode of occurrence and geological characteristics of petroleum, natural gas and coal deposits.
Textbook: Levorsen, Geology of Petroleum.

Geology 464 - Introductory Sedimentary Petrology - J.F.Lerbekmo. (0-0;3-3)
Processes of sedimentation: weathering, transportation, deposition, diagenesis; classification and description of sedimentary rocks.
Textbooks: Pettijohn, Sedimentary Rocks 2nd ed.;
Folk, Petrology of Sedimentary Rocks.
Prerequisite or Corequisite: Geology 454.

Geology 508 - Precambrian Geology (3-3;0-0)
R. A. Burwash
A study of the geological record of Precambrian time, with special reference to the Canadian Shield.
Prerequisite: Geology 455 and 458.

Geology 461 is a half-year course now available in the Faculty of Engineering. This will be taken along with Geology 464 as a Geology option in the third year of Geology pattern if the pattern change allowing it is approved.

It was explained that Geology 461 would be offered twice each session, with students in Arts and Science taking the first and Engineering students the second offering. Geology 461 and 464 were the equivalent of Geology 458 (Mineral Deposits.)

The courses and course changes desired by the Department of Geology were approved.

(c) Chemistry:

The Dean stated that the Department of Chemistry was very anxious to implement a full graduate program in Chemistry. He was not sure when this would be possible. Professor Ryan wondered if such a development was even desirable as the duplication of graduate courses was expensive.

At the moment, the Chemistry Department wished to offer at Calgary a proposed course to be called Chemistry 587:

Chemistry 587 - Infrared and Raman Spectra (0-0;3-0)
The lectures deal with the relation of infrared and raman spectra to molecular structure; experimental techniques; and effect of solvent and other factors influencing spectra. Current research literature in the field will be stressed.

This was approved.

(d) Music:

Professor Eaton, Head of the Music Division of the Department of Fine Arts, submitted a statement which should appear as a note along with the course requirements of the B. Mus. degree. The Dean explained that the two practical subjects had caused certain difficulties. The normal student would present, for example, Grade IX of the Western Board of Music as a prerequisite for the first practical subject. People whose qualifications in the practical subjects were quite advanced, however, wished to take the degree program. Some already possessed the Associateship, which in the pattern was the culmination of the first practical, or could get the Associateship in one year. Such people could go forward to the Licentiateship if they wished or could take new Music courses designed to further their particular skill.

The idea was approved in principle but the statement itself was sent back to Professor Eaton for re-wording.

(d) Classics:

The Department of Classics desired comparatively minor changes in Classics 353 (Roman History - the Influence of the Roman Genius on the Western World) and Classics 356 (Early Civilization.) The changes were sought by the new instructor, Dr. Buck, who would teach the courses in the next session.

Professor Ryan wondered if this and other course descriptions might not be thinned down. The Dean approved of this notion which he though might be brought forward in the fall.

Professor Hanson approved of this notion and forthwith made changes in the re-wordings of two of his courses.

(e) Political Economy:

The Committee approved the revised calendar descriptions of Economics 300

(Intermediate Economic analysis) and Economics 310 (Canadian Economic Development.)

3. The Committee on Promotion Regulations and Related Matters:

The committee considered the nomination of members for this committee, which had been approved by Council. The Dean hoped that if the committee was set up and the membership approved by Council, it might hold two meetings before the end of the current session. It was agreed to ask Professor J. T. Jones to act as chairman, and the following to serve as committee members: Dr. W. J. Eccles, Dr. K. B. Newbound, Dr. J. H. Whyte, Dr. W. C. Wonders.

4. The Cameron Report:

The Dean enquired of the committee if the Cameron Report should be a subject for Council debate. There were a number of matters of concern to the Faculty. He felt that the report should not have ignored the B. A. plus a teaching certificate as a most suitable qualification for a teacher: the Report considered only the B. Ed. In addition, the accreditation of High Schools who could set their own examinations might lead to a demand for university entrance examinations. On the other hand, a/Faculty debate might enable many members once again to drag out and ride their favourite "hobby-horses" to little purpose.

It was felt by the committee that too few people had read the Cameron report, despite the eagerness to discuss it. In part this was the fault of the government, in that few reports were available at first. There were now between 11,000 and 15,000 and they were not too hard to obtain. It was suggested that members of the Committee should familiarize themselves with the report, if they had not already done so, and Department heads should urge their members to read it also. The Committee agreed to study the report and to consider the possibility of such a Faculty Council debate at a later date.

5. Special Requests:

As a result of the abolition of the Committee on Examinations, to the Dean came many matters which had been the concern of its members. The Dean noted two cases of individuals who had become ill at examinations and had not requested the cancellation of their papers. One had seen a staff member who had given him the wrong advice. What one should do in the case of illness at an examination was clearly written on the front of the examination booklet. The Committee felt that such cases were not a matter for their opinion, and suggested that the Dean refer the cases he had in mind to Deans' Council.

The Dean also mentioned that some students who had received psychiatric treatment attempted to return to the university supported by a most inconclusive report from a psychiatrist. It was difficult to act upon such requests. Moreover, some reports stated that it would be of benefit to the individual concerned that studies be renewed. The Dean felt that this was so in many cases, but he did not think that the university was a ward for advanced psychiatric treatment. The Committee again felt that such matters were the concern of the Dean's office.

6. The Meaning of Marks:

The Committee considered the possibility of Council debating the subject of "The Meaning of Marks," to use the title of Dr. Hocking's study. The Committee might draw up a summary of Dr. Hocking's report, leaving out the extraneous material such as graphs, etc.

It was felt that most staff members are unaware of the real issues involved in the various systems of marking. Most had no idea of the claimed benefits of the letter grading system. Dr. Brodie remarked that he had used the letter system for eleven years and he could see no virtue in it.

If the University went over to one of the more complicated systems, an attempt must be made to get rid of the inconsistencies that were the mark of many of these. These systems were different from the simple concept of marking in straight symbols.

There was a good deal of criticism of the system as put forward by the registrar: e.g. within five points it is difficult to distinguish between first-class students. It was felt that a new system was not as important as a full recognition of the weaknesses of the existing one: this could be greatly improved.

The Committee proposed that if the "Meaning of Marks" was to be considered, it might be considered at a meeting of the staff of the Faculty, as distinct from the Council of the Faculty.

The meeting adjourned at 1.15 p. m.

Douglas E Smith
Chairman

J. D. Bleckley
Secretary

The eighth meeting of the Executive Committee of the Faculty of Arts and Science was held on Friday, April 1st, 1960, at 1.30 p. m. Present were Dean Smith (Chairman) and Professors Ryan, Hanson and Brodie. Professor Wyman was unable to attend because of illness. Since the position of Faculty Secretary was vacant, the Assistant Dean and former Faculty Secretary attended to take the minutes.

1. British Universities Summer Schools:

The Committee was reminded of the decision of the Arts and Science Council to grant one credit for a suitable course taken at one of the British Universities Summer Schools. Considerable concern had been expressed at that time about the lack of examinations at these Summer Schools, the character of their seminars, the papers required of students, etc. The Dean had been in touch with the co-ordinator of the British Summer Schools, Mr. Jessop, the Secretary for the Delegacy of Extramural Studies at Oxford, and Miss Bamford who was concerned with the Summer School of the University of London.

The replies of these people indicated that students were selected with considerable care, and every attempt was made to discourage those who were really tourists. There was a good deal of written work required, and at London a paper which was the equivalent of a minor thesis. The level of the courses was such that only those who had done a great deal of preparation could profit. These statements were supported by a fairly comprehensive course outline from the University of London.

The Dean stated that he had written two or three Departments to see what they thought. Professor Glyde of Fine Arts had replied that such courses had no equivalent here; Professor Thomas of History thought that one credit might be granted subject to reasonable safeguards; Professor Jones stated that equal credit might be given in view of the high quality of the instructional staff, but he wished more information on tutorials, written work, etc.

The Dean read the letter from Miss Bamford.

It was the feeling of the Executive Committee that one credit most definitely should be allowed for attendance at a British Universities Summer School, and in some instances a second might be granted. To qualify for the second credit a student must be prepared to undergo an examination, produce a paper written during the Summer School for grading, or in some other way satisfy the Department concerned. It was felt that setting an examination here might be difficult since the British courses seemed to be much more interpretive than here and certainly assumed a great deal of background. The final phrasing was that if a student wished a second credit he must satisfy the department concerned for the advance standing.

The discussion had been provoked by a letter from a student, Mrs. Ruby Ewan, who had considered the possibility of attending such a Summer School. She had been informed that one advance credit would be granted if the course taken was suitable for the needs of her pattern, and that under some conditions a second advance credit might be granted for the same course.

2. Calendar-Changes:

(a) History:

The following new courses were desired for offering in Calgary but not for Edmonton. When they had been handed into the Arts and Science office it was too late for inclusion in the 1960-61 calendar. If approved, the courses would be first offered in 1961-62 and then in alternate years.

History 305 - Europe from the Peace of Westphalia to the French Revolution (3-0;3-0)
G. M. Self
Not offered in 1960-61. Offered in 1961-62 and in alternate years.

History 307 - Europe, 1789 - 1870 (3-0;3-0)
G. M. Self
The absorption of the French Revolution into the complex of European ideas.

History 309 - Europe, 1870 to the present (3-0;3-0)
F. G. Heymann
The immediate background of contemporary Europe

History 325 - Eastern Europe, including Russia (3-0;3-0)
F. G. Heymann
A survey, with particular reference to Russian history from the Kievan period to the present.

History 327 - The Balkans (3-0;3-0)
G. M. Self
A survey, with special emphasis on the Turkish regime and after.

History 410 - Africa (3-0;3-0)
G. M. Self
A survey, with special reference to European penetration and African reactions.

An important principle was involved in these proposed courses. History 307 and 309 (covering Europe from 1789 to the present) were not the same as History 306 (Europe 1648 to 1815) and History 308 (Europe Since 1815) offered in Edmonton. History 325 was designed to meet the interests of Professor Heymann as the Calgary alternative to History 324 (Russia). Professor Heymann was particularly interested in Czechoslovakia and while the proposed History 325 would be primarily Russian history it would include middle European history generally. History 327 (The Balkans) and History 410 (Africa) represented the interests of Professor Self and had no counterpart whatsoever in the Edmonton offerings at present.

The Committee agreed that it was "high time" Calgary got onto its own feet and the approval of these courses would be good for its morale. There might be some problem with these courses on transfer to Edmonton, but nothing that could not be overcome: such transfer problems would be no worse than the transfer of credits obtained at other universities.

The Dean said that it was his understanding that Calgary could proceed towards autonomy just as rapidly as Principal Taylor wished. Like the Committee, he felt that Calgary should have courses of its own and that the History courses in question might represent a beginning.

(b) Music:

The Division of Music in the Department of Fine Art sought approval for the following course:

Music 460 - Composition. (1-0;1-0)
Robert Stangeland
A sequent course to Music 450. Writing in various forms with emphasis on 20th century techniques. Only those students who show marked ability in composition will be admitted to the course.
Prerequisite: Music 450.
(This course, offered in 1960-61 for the first time, will give those gifted students an opportunity of further developing theirtechnique. Students not gifted in composition and in need of an extra course will have the opportunity of studying Music 500, a history course already approved.)

The Dean explained that until now the Music Division had no one who was competent enough to offer a course in composition. Some students in the third year of the B. Mus program wished such a course and one was now to be offered by Professor Stangeland.

Professor Brodie observed that it takes a very good specialist to give such a course and enquired of the Dean about Professor Stangeland's qualifications. The Dean said that he was not too well-informed on this subject but he knew that Professor Stangeland had had some training in this field. When the position given to Professor Rolston had been advertised, a choice had to be made between a specialist in composition and a violinist, and the latter had been appointed. Stangeland, however, in the opinion of Professor Eaton, was fully qualified to teach composition.

It was noted that this course was not at the beginning level. Rather it was a third stage. It required as a prerequisite Music 450 (Harmony, Counterpoint and Elementary Musicology) which, in its turn must be preceded by Music 350 (Elementary Harmony and Counterpoint.)

The course was approved.

3. The Committee for the General Science Pattern:

The Committee discussed the arrangements made for the supervision and guidance of students in the General Science pattern. Three staff members, Professors Davis, Crosby and Nursall, formed a committee for this purpose, of which Professor Davis was the chairman. One of these three had to be on duty to represent the General Science pattern during first year registration. While all signed tentative course selection forms, etc., the bulk of the work seemed to be done by Professors Davis and Nursall. These two were the busiest of the three, since Professor Davis did all the routine administration work of the Department of Chemistry and Professor Nursall was the Administrative Officer of the Department of Zoology.

The Dean felt that both Professors Davis and Nursall were swamped with work and wondered what might be done to relieve them of some or all of their responsibilities connected with the General Science program. It might not be wise to change the committee while students were engaged in filling out Tentative Course Selection forms. The Assistant Dean suggested the addition of a fourth man to the committee. This, he felt, was fully justified in view of the increasing number of students selecting the General Science pattern. The committee of three had been set up when the course was organized and had been adequate when it was gaining acceptance amongst the students. Now, an additional member would not be out of place and this step would make it possible to retain Professor Davis as chairman. Students would be encouraged to go to Professor Crosby and the new appointment rather than to Professors Nursall and Davis.

It was felt that this would be a suitable interim measure but the composition of the committee should be considered at a later date. It was also felt that the fourth member might be drawn from the Department of Physics, although Professor Ryan suggested Professor Phibbs of the Department of Mathematics as an individual who would like some committee experience. Professors Garland and Trainor were suggested. It was one opinion that Professor Garland might profit the most since his research allowed few close ties with the campus and students. The Dean said that he would approach Professor Garland and Professor Trainor.

4. Review of the Functions of the Executive Committee:

The Committee was reminded that Professors Ryan and Brody were due to retire on September 1st as a result of the lots drawn at the last meeting. Consequently it was necessary to obtain two new Executive Committee members to replace them. According to the Committee's terms of reference, the Dean would appoint a nominating committee that would report to the Faculty Council. The Dean proposed to ask Professor Keeping to chair this nominating committee and would announce the composition of that committee at the April meeting of Faculty Council. He also proposed to ask this same committee to review the terms of reference of the Executive Committee now that it had been in operation for a year.

Professor Brodie agreed very heartily with this suggestion. He sometimes wondered how much of the deliberations of the Committee were wasted: Council often paid little heed to decisions that had been difficult to make.

There was some discussion on this point. On the whole it was felt that the consideration of calendar changes had been facilitated in Council. Occasionally, however, Council had reversed the decision of the Committee and, occasionally too, rightfully so. It was felt that even in some "unfortunate cases," what the Committee had done had made a suitable solution possible later in Council. There had been no comments on the Committee's treatment of special cases.

The Dean felt that some good suggestions might be received. It was agreed that the minutes of the Executive Committee should be made available to the nominating committee so that a real appraisal of work done could be made. The Committee agreed that its work should not entail the review of other committees reporting directly to Council, such as the Patterns Committee. Any suggestions that members might wish to make on the workings of the Committee might be sent in writing to the Dean.

5. Petitions:

(a) Mr. R. E. Stephens:

Mr. Stephens was a Music Supervisor in the Edmonton schools, who was attempting a B. A. (Music pattern) after the B. Ed. He then planned to take an M. A. in Music at another institution. His problem was to obtain credit in Music 350 and Music 400, which were never offered in the Summer Session or in the Evening Credit program. He had written to the University asking that these Music courses be put on at Summer School or in the Evening Credit program. This request it was necessary to refuse since these courses were desired by no one else. Mr. Stephens had then asked to be allowed to take extramurally, or by private tuition, Music 350 and 400. It might be possible for him to find someone in Edmonton who could instruct him in Harmony and Counterpoint. Mr. Stephens had stated that this was the only other possible method since the School Board would not allow him to take the courses at the regular time during the University session.

The Dean explained that when the B. Mus. program had first been organized, for instruments not yet taught by the Music Division, outside instructors had been appointed, such as Madame Le Saunier. This had been necessary, but when Professor Stangeland had been appointed some of these students were most annoyed when they were required to take their piano instruction at the University.

It was felt by the Executive Committee that compliance with Mr. Stephens' request would lead to an avalanche of similar ones. He should be instructed to obtain comparable courses at other Summer Schools. The Assistant Dean agreed to consult with Mr. Eaton on suitable schools and to inform Mr. Stephens of the decision.

(b) Miss A. M. Liviero:

Miss Liviero was completing the requirements of the B. A. (History) after the B. Ed. In the original assessment of the number of courses required for this second degree, a mistake had been made. She was now finishing the final course of the correct number required, but was lacking a biological science. Her current registration in Geology 201 indeed was her only science course since she had been asked to present only two. Miss Liviero asked that she be excused the biological science and be allowed to graduate if she successfully completed the Geology course.

It was felt by the Executive Committee that, in view of Miss Liviero's reasonable record and the original error, that her petition might be upheld.

(c) Mrs. Vera Clooney:

Mrs. Clooney, who was attempting the B. A. (History Pattern) after the B. Ed. had taken some nine courses from Queen's University and the University of Western Ontario. The Faculty of Education had given her credit for four only of these nine courses. She asked that two of the remaining five courses might be allowed for credit on the B. A.

All these were extramural courses taken by correspondence. There was a university regulation that not more than the first year of any program might be completed by these courses. In view of Mrs. Clooney's age and reasonable record the Committee agreed to allow her to count Economics 4 (with a second class standing) from Queen's University on her B. A. program. This decision would allow her to count five of her correspondence courses, four in Education and one in Arts.

6. Other Business:

Professor Ryan, who was concerned with the calendars of the University, wondered if some arrangements might not be made to get foreseeable changes in courses, etc., approved by Christmas. The agenda of the February meeting of General Faculty Council, unless some changes were made, could not be adequately considered and would become even heavier in the future. He wondered if it might not be possible to organize a sequence of dates by which various things must be done.

It was felt that Departments soon accepted the fact that such dates must be met and President Johns had been very firm in the past session on final dates for calendar changes. The idea could be investigated at a later date.

The meeting adjourned at 3.10 p. m.

Douglas E. Smith
Chairman

F. D. Blackley
Secretary

The ninth meeting of the Executive Committee of the Faculty of Arts and Science was held on Friday, November 4th, at 3 p. m. in the office of the Dean. Present were the Assistant Dean, Professor Blackley; Professors Wyman, Elder, Hanson and Wonders; and the Faculty Secretary. In the absence of Dean Smith, in accordance with the recommendation of the Committee concerned with the membership of the Executive Committee, the Assistant Dean presided.

1. Minutes of the meetings of December 22nd and April 1st;

The Assistant Dean apologized for the delay in sending out the minutes of the meetings of December 1959 and of April 1st, 1960, but this had at last been done and members of the Executive Committee had received them. The minutes of these two meetings were approved as circulated.

2. Business Arising Out of the Minutes:

The Chairman noted that three items might be considered as business arising out of the minutes. In the meeting of December 22nd, 1959, the Executive Committee had agreed to study the Cameron Report and to consider the possibility of a Faculty Council debate on this subject at some later date. At the same meeting, the Committee considered the possibility of Council debating the subject of "The Meaning of Marks," Dr. Hocking's study. The Committee had proposed that if "The Meaning of Marks" was to be considered, it might be considered at a meeting of the staff of the Faculty, as distinct from the Council of the Faculty. Nothing had been done about either idea and the Assistant Dean felt that the attention of the staff would be fully occupied with the discussion of the Hardy Report on the General Course Curriculum for some time to come. It was agreed that no action should be taken on either of these two matters arising from the minutes.

At the meeting of April 1st, the Executive Committee agreed to propose the addition of one staff member to the Committee for the General Science pattern in order to lighten the load, particularly of Professors Nursall and Davis, in registering these pattern students. The Assistant Dean said that when the matter was further investigated, it was found that Professors Whyte and Harrold were members of this Committee, a fact which had been forgotten, and the proposed appointment of a new committee member proved to be unnecessary.

3. Calendar Changes:

(a) Urgent calendar changes:

(i) Department of History:

The History Department wished a new Honors and Graduate course, History 541, whose approval could be made retroactive to the beginning of the session. A number of students had enrolled in History 540 (History of the American West,) who actually wished a somewhat different graduate American History course. It was proposed to put these students in a new course entitled, "Problems in the History of the United States, 1865 to 1919." The course also would be taught by Dr. Farnham, the instructor in History 540, and would alternate at need with that course.

The Executive Committee agreed to this request.

The History Department further requested a change in History 500, the Special Subject in Honors History, which is taken in both the third and the fourth year. The History Department proposed that for the present History 500 (Special Subject) there be History 500 (Special Subject third year Honors History), and History 501 (Special Subject, fourth year Honors History.) The Assistant Dean explained that there were always people who dropped out of Honors at the end of third year and having a course number for each of the two years of the Special Subject would facilitate the granting of marks, etc. The Special Subject in content would remain the same as before, with the desired change being proposed only to facilitate the keeping of a student's record. The History Department agreed to assign a mark for the course each year to each student. The Executive Committee agreed to this proposal.

(ii) Division of Music:

The Department of Fine Arts, Music Division, requested approval for

Music 311, whose description follows:

> Music 311 - Band and Orchestra (10-10)
> Practical instruction in band instruments and in matters relating to the formation, direction and administration of beginning band. This is an intensive course intended only for persons already competent in theoretical and practical music.
>
> Instrumental studies will include tone production, fingering, and the embouchure of all brass and woodwind instruments. A survey of percussion instruments and their performance techniques. Care of band instruments. Conducting. The special study of clarinet, trumpet, trombone and rudimentary drumming.
>
> (To be offered in 1961 at the Edmonton Summer Session.)

It was noted that this course would be offered at the Edmonton Summer Session of 1961 and that early approval was requested in order to have an instructor appointed. The course was designed to meet a real need, a shortage of trained band personnel. It was proposed that this course might be followed by others in this field at a later date. At the moment the course was not a part of the B. A. in Music or the B. Mus, but it might find a place at a later date. Permission was now requested for this course as an approved A division option in this Faculty, and to meet the needs particularly of students in Education. This course was approved.

(b) Calendar changes for the meeting of Council in December:

(i) Music: (See Insert *)

It was explained that the proposed new courses met the interests of the Division of Music. Professor Crighton, for example, was spending his summers on the subject of medieval music at the University of California. The wish to assign a number to the practical subjects was an attempt to avoid confusion. The first practical subject in the first year was numbered Music 225 and the second practical subject numbered 215 with a reason. The second practical subject was a subject begun at the University, while the practical first subject required the Grade IX of the Western Board of Music or its equivalent to begin. The note of explanation on the first practical subject would merely regularize what was the current practice and spell out that practice in black and white in the calendar. The notion that a student should study music for three years under the guidance of the University in his practical subjects was a part of the original conception of the program.

In the practical first subject, the student is required to reach at least the standard of the A. Mus. Diploma. Progress of students is uneven and one at least in the program at present seems not likely to reach that level at the end of his three years of study. The Division of Music, therefore, proposed that such people be granted a limit of two years after the three required years, to reach the required level, and that the reaching of the required level should be the problem of the student. The regulation, the Assistant Dean felt, would also aid in meeting the occasional case in which a student changed his practical subject, placing the onus upon him to reach the required level of proficiency in his new practical subject.

The Executive Committee approved the desired change.

(ii) Department of Psychology: (See Insert **)

The Assistant Dean stated that he had spoken to Professor Royce, the Head of the Department, on the matter of course changes. Professor Royce had informed him that the changes he desired reflected the interest of the Department as at present constituted and involved small changes which he felt, as the new Head of the Department, to be desirable. One of the suggested new courses, Psychology 574, was a course to be offered by Professor Royce and Professor Radcliff, a member of the Department of Philosophy. Professor Wyman asked the meaning of the term "pro-seminar" found in Psychology 500. The word was unknown to the Chairman, who agreed to consult the Dean on this point.+

The courses requested were approved.

+Note: Dean Smith, on consultation, explained that this was a term used amongst psychologists and was one that would be fully understood by other departments of Psychology. In essence, a pro-seminar was a course in basic principles, problems and methodologies which preceded the more intensive courses in advanced Psychology.

(iii) Department of Geography: (See Insert ***)

Dr. Wonders, as a member of the Executive Committee, explained the background to the proposed courses and course changes. The new area courses represented the interests of new staff members in the Department of Geography. Geography 500 (The History and Nature of Geography) was a senior course of a type which had a counterpart in other disciplines. This would be taught by Professor Farrell who was very interested indeed in the subject itself. Professor Hanson felt other patterns might be interested in this course, but Professor Wonders pointed out that it was on the Honors and Graduate level. The Assistant Dean asked if such a course could be presented at a lower level, with the concept in mind of general science courses for Arts students. Professor Wonders said that this could be the case, but he doubted that many people would be interested in taking the course.

Professor Wonders explained that the Department was presently offering Geography 403 as Weather and Climate. As Professor Longley moved more from Mathematics to Geography, he wished to have more opportunity for teaching his area of specialization, Meteorology. It was proposed, therefore, to make a new course in Weather and Climate, Geography 303, and to retain the present 403 as a senior course in Meteorology. He drew attention to the prerequisites of Mathematics and Physics for this latter course. The Executive Committee asked if it would not be wise to make the proposed new course Geography 405, since a number of people had already taken and were taking 403. Professor Wonders raised no objections to this suggestion, and Geography 405 would be put forward as a new course, rather than making changes to the present Geography 403 (which would remain on the books as not offered.) The other changes desired by Professor Wonders were simply a part of a tidying-up process. The Executive Committee agreed to the proposals of the Department of Geography.

(iv) Department of Geology:

Geology 402 - Geology of Canada (3-3;3-3)
The study of the geologic regions of Canada; their stratigraphy, structure and mineral deposits.
Textbooks: Geology and Economic Minerals of Canada, 4th edition (G.S.C.); Geological Evolution of North America (T.H.Clark and C.W. Stearm, 1960.)
Prerequisite: Geology 201.

Note: This is a general course designed as a senior Division C option, not to be taken by students majoring in Geology. It is to be offered in both Edmonton and Calgary.

4. Petitions:

1. Kathleen Lynne Newcombe:

Miss Newcombe, a student in the third year of the B. Mus. program, wishes to proceed to graduate work at the Eastman School of Music in Rochester, New York. For admission, she will have to display great skill and a wide repertory in piano and will be competing with students who have had four years of university preparation in the piano. She asked that she be excused from Mathematics 250 for her preparation and that, for this course be substituted one of two courses (Sociology 202 and Classics 357) she took as extra courses in the Summer Session of 1960. Miss Newcombe is an excellent student and her petition was supported by letters from Professor Stangeland and Professor Eaton.

The Executive Committee refused the request. When Miss Newcombe was allowed to take the Summer School courses, she was told in the plainest terms possible that under no conditions would she be allowed to use the 1960 Summer School courses on her B. Mus. degree. Dean Coutts, of the Faculty of Education, did say that she could use them on a B. Ed. after a B. Mus. The Committee felt that it was hardly responsible for Miss Newcombe's change of plans, and that her position had been made very clear to her.

2. Helen Elizabeth Moogk:

Miss Moogk is attempting a B. A. in the Sociology pattern, after a B. Sc. in Nursing from McGill University. On this she has taken two courses (Psychology 340 and Sociology 460) and requires four more, since she was allowed credit on her B. A. for three courses taken as a student in the Faculty of Education. Miss Moogk's remaining requirements are three science courses and one arts course. She requested that some reduction be made in the science requirement since her Nursing courses were on the whole slanted in the direction of science and she wishes to broaden her intellectual horizons.

The Executive Committee agreed to allow Miss Moogk to complete her degree requirements by two (rather than one) Arts courses, and two (rather than three) science courses.

3. Vernon Ray:

Mr. Vernon Ray was admitted as a Special student to the academic session 1959-60. He had one matricultion deficiency and took Physics A to clear that deficiency, and four first year courses. He was successful in all of his courses and now petitioned the Faculty for degree credit on his four non-matriculation courses.

The Executive Committee agreed to grant Mr. Ray's request, but suggested that in such straightforward cases the Dean's office might make the decision.

4. Harold Albert Courtney:

Mr. Courtney, a second-year student in the Modern Languages pattern, lacks the compulsory course in Physical Education of the first year. He is interested in ballet and this year is taking seven hours a week of very strenuous calisthenics, exercises and dancing. He requested that his ballet work be accepted in lieu of the compulsory Physical Education.

The Executive Committee refused the request, While not unsympathetic with Mr. Courtney's request, it was felt that approval of this request would lead to many others and that the regulation should be upheld.

5. John Alton Blackett:

Mr. Blackett completed two years of Engineering and one year in Arts and Science in the Chemistry pattern. He is now in the first year of Dentistry, taking Economics 200 as an extra subject in place of Chemistry 350 completed in Arts and Science. Mr. Blackett asked what he would be required to do to finish his B. Sc. in General Science and noted that originally he was taking a Psychology course instead of Economics 200 as an extra subject, but that this had been cancelled.

The Executive Committee noted that for a B. Sc. in the General Science pattern, Mr. Blackett needs a senior approved C division course and a Special A or B option. It was also noted that Biochemistry 411, to be taken in second year Dentistry, was very similar to Biochemistry 300, a suitable senior C division option. It was felt that Mr. Blackett might be treated as medical students are treated (see page 61, paragraph 3 of the Arts and Science calendar,) and that Biochemistry 411 could be accepted as his missing senior approved C, and Economics taken as his missing approved A or B option. Mr. Blackett, therefore, could be given his B. Sc. in General Science on the successful completion of his second year in Dentistry.

5. Other Business:

The Chairman noted that in the late spring of 1960 a letter had been received from Professor Collier and the other members of the Committee concerned with the Special B. Sc. course, to the effect that the course had outlived its usefulness with the establishment of the subsidized medical program which provided Registered Technologists and made provisions for these people to obtain a University degree. It was suggested, therefore, that the course be abolished. The Dean had attempted to restrict admission to this course, but it was found that there were a number of people who desired to take it, even when they were in full possession of the facts about the medical program. The Assistant Dean then said that he had talked with Professor Davis on the problem of finding jobs for women in the sciences and it was Professor Davis' opinion that the young ladies who had a degree in this Special Course had found it easier to obtain positions than those who had the B. Sc. in the Chemistry pattern. Professor Davis explained this tho by the fact that they had Biochemistry and Pathology and various other courses which were not usually found in the regular science programs and these were particularly useful for certain types of laboratory work. A phone call had been made to the Director of Employment Services on the campus, who thought that this might be the case, but did not wish to give a firm opinion until he had investigated the matter. The Assistant Dean, therefore, suggested that the matter remain open for discussion at a future date.

Dean Smith had raised the problem of science students from India, such as Mr. Sukhdial Singh, and their treatment. Mr. Singh had come as a Special student, and in the five courses he had attempted last year he obtained second-class standing in one only. The original proposal had been that he might possibly be granted a B. Sc. at the completion of ten courses without any firm decision made on the seconds that he would require. From Mr. Singh's record the Assistant Dean thought that it would be not unreasonable to ask him for six second-class standings, but that the matter should be debated. Professor Wyman felt that there was indeed a problem with Indian students and he felt that the whole matter should be considered at length, preferably at a later date. There being no other business, it was moved by Professor Wyman, seconded by Professor Hanson, that the meeting be adjourned, at 4.30 p. m.

J. Q. Blackley for
Douglas E Smith
Chairman

Secretary

1961-62 CALENDAR CHANGES

I. Division of Music

(1) New Courses:

~~Music 311. Band and Orchestra (10 - 10)~~

~~Practical instruction in band instruments and in matters relating to the formation, direction and administration of beginning band. This is an intensive course intended only for persons already competent in theoretical and practical music.~~

~~Instrumental studies will include tone production, fingering, and the embouchure of all brass and woodwind instruments. A survey of percussion instruments and their performance techniques. Care of band instruments. Conducting. The special study of clarinet, trumpet, trombone and rudimentary drumming.~~

~~(To be offered in 1961 at the Edmonton Summer Session.)~~

* Music 510. Notation of Medieval Music (2-0; 2-0)

A study of the development of notation through the various schools of neume notation, Gregorian notation, Troubadour, early polyphonic, modal notation, the Franconian system and the period of Ars Nova. The transcription of facsimiles.

Textbook: Parrish, The Notation of Medieval Music

Music 520. Notation of Renaissance Music (2-0; 2-0)

A sequent course to Music 510. Tablature and keyboard notation, proportional notation, white notation of the 15th and 16th centuries. The transcription of facsimiles.

Textbook: Parrish, The Notation of Renaissance Music

Music 451. Analytical Techniques (1-0; 1-0)

Analysis of the larger forms. Structural elements in music of the 20th century.

A laboratory course to be taken concurrently with 450.

(2) Course Changes:

First Practical Subject in first year of B.Mus. program to be called - Music 225.

Second Practical Subject in first year of B. Mus. program to be called - Music 215.

These two subjects to be known in the second and third years of the B.Mus. programs as - Music 325, 315 and 425, 415 respectively.

Laboratory courses already being offered within Music 250 and 350 now to be extracted and designated as follows:

Music 251. Form and Analysis (0-1; 0-1)

The basic principles of musical structure. A study of binary and ternary forms, the sonata, concerto and fugue.

Textbook: Macpherson, Form in Music.

Music 351. Harmonic Analysis (0-1; 0-1)

Analysis of chord structure and all types of non-harmonic movement. Chromatic harmony in the various periods up to Debussy.

Music 251 and 351 are required for all students enrolled in Music 250 and 350 respectively.

First Practical Subject in the B.Mus. Program

As the first group of candidates for the degree of B.Mus. enters its final year, it is apparent that at least one of the students will not complete the requirements of the First Practical Subject (A. Mus. Diploma). This means that the degree will be withheld until this deficiency is corrected.

In the case of B.Mus. students lacking this one requirement, I would like the Council to approve that a time limit of two years be granted them in order that they may complete the requirements of the First Practical Subject. Also that the responsibility of correcting this deficiency be the student's.

Addition under Note II First Practical Subject (p. 79 of current calendar):

All students in the B.Mus. program are required at the completion of this program to have had three years of instruction, at University level, in their First and Second Practical Subjects.

*XII. Department of Psychology

(1) New Courses:

Psychology 472. Comparative and Physiological Psychology (3-1; 3-1)

R. C. Miles

An analysis of behavior with reference to phylogenetic difference and physiological mechanisms.

Prerequisite: Psychology 202 and Zoology 220, or consent of instructor.

Psychology 500. Psychology Proseminar (4-0; 4-0)

An intensive survey of the major areas, problems, and methodologies in the field of psychology.

Required of all students in the fourth year of psychology.

Psychology 528. Advanced Psychometric Theory (3-1; 3-1)

Principles of psychological measurement with stress on test theory, psychophysical methods and scaling, and factor analysis. Includes such topics as reliability, validity, item analysis, law of comparative judgment, centroid analysis, simple structure, and factorial applications in psychology.

Prerequisites: Psychology 430 and Statistics 205.

Psychology 574. Seminar in Philosophy and Psychology (2-0; 2-0)

J. R. Royce (Psychology) and P. Radcliff (Philosophy)

A study of the fundamental methodological, conceptual and philosophical issues in psychology.

(2) Course Changes:

Statistics 305 - Change the course number to 205. (The Department of Mathematics has been contacted.)

Psychology 382 - Change the word sociological to social. Drop the words "the mature personality".

Psychology 530 - Delete the course description. Change prerequisites to read Psychology 430 and Statistics 205.

Psychology 572 - Insert the words "Research in" at the beginning of the title.

(3) Course Deletions:

Psychology 342 - Psychology in Relation to Human Welfare

Psychology 432 - Theory of Psychometrics

Psychology 580 - The Study of the Individual

***

III. Department of Geography

(1) New Courses:

Geography 303. Weather and Climate (3L-0; 3L-0)

A systematic study of weather processes and phenomena, regional weather patterns, climatic classification, and climates of the continents with some consideration of climatic trends. Laboratory work will include the interpretation of weather and climatic maps and local weather patterns.

Prerequisite: Geography 201 or consent of the instructor.

NOTE: This is a C division course.

Geography 412. Latin America (3-0; 3-0)

A survey of the physical features of Middle and South America, followed by consideration of aboriginal peoples, settlement by the Europeans and a regional analysis of the individual countries.

Prerequisite: A course in geography, or consent of the instructor.

Geography 414. Africa (3-0; 3-0)

A general survey of the physical geography of the continent, its colonization and resources, followed by detailed regional studies.

Prerequisite: A course in geography, or consent of the instructor.

Geography 500. History and Nature of Geography (1-2s; 1-2s)

Geography from ancient times to the present; the most important geographers and an assessment of their contributions; significant contemporary geographic concepts; current major developments within special branches of geography; geography in other countries.

Prerequisite: Consent of the instructor.

~~(2) Course Changes:~~

Geography ~~403.~~ 405. Introduction to Theoretical Meteorology. (3L-0; 3L-0)

A study of the physics of the atmosphere, including thermodynamics, stability, equations of motion, friction and turbulence, mechanics and structure of cyclones and anticyclones.

Prerequisite: Mathematics 201, Physics 240.

NOTE: This is a C Division course.

(2) Course Changes:

Geography 501 - To the course description add "NOTE: This is a C Division course".

Geography 406 - A change in prerequisite from "One of Geography 1, 50, 51, 201, 300, 302 or consent of the instructor" to "A ~~previous~~ course in geography or consent of the instructor".

Geography 501 - A change in prerequisite from "One of Geography 1, 50, 52, 201, 300, 301 or consent of the instructor" to "A ~~previous~~ course in geography or consent of the instructor".

The tenth meeting of the Executive Committee of the Faculty of Arts and Science was held on Tuesday, November 22nd, at 4 p. m. in the office of the Dean. Present were the Assistant Dean, Professor Blackley; Professors Wyman, Elder, Wonders and Moore; and the Faculty Secretary. In the absence of Dean Smith the assistant Dean presided.

1. Minutes of the Meeting of November 4th, 1960:

The minutes of the meeting of November 4th, 1960, were approved as circulated.

2. Calendar Changes:

The Assistant Dean, as Chairman, called first for any observations of members on the material circulated before the meeting. Professor Wyman thereupon questioned the specifications for Physics 240, whereby Mathematics 200 "may be accepted by special permission." The Chairman explained that since Mathematics 201 was a co-requisite of the course, the exception was made for students of superior ability so that they could present Mathematics 200 as a co-requisite.

The Chairman observed that throughout the material before the Committee there appeared a "mathematical trend" and asked Professor Wyman whether this carried any special significance. Professor Wyman concurred in the observation, and expressed himself concerned since he was of opinion that stress of this kind leads to overlapping of courses and resultant rise in costs. The Chairman mentioned specifically Economics 504 (Econometrics), but, it was explained, this course was proposed with a specially qualified instructor to give the course. The Chairman also mentioned Chemistry 589 in this context, and Professor Wyman expressed similar concern with respect to the proposed course Zoology 515 which he felt involves a great deal of mathematics. The Chairman agreed that there appeared to be a great overlap in this course with Mathematics 270. It was decided that this question should be taken up with the Zoology Department and accordingly consideration further by the Committee was deferred.

Professor Wyman was not, however, disturbed by the courses in Econometrics and Statistical Mechanics in both of which, he pointed out, there would be no avoidable overlap with the Department of Mathematics.

The Chairman then announced that, there being no further individual queries rising, the Committee would deal with the proposals before it as appears on the attached report.

(1) Mathematics:

Professor Wyman mentioned that the introduction of these new courses stemmed in part from the addition of new personnel in the Department who, of course, have brought new interests with them.

Mathematics 616: (as per listing.)

Mathematics 621: (as per listing.)

Mathematics 652: The Chairman asked as to the pre-requisite thought necessary for this course, and Professor Wyman, after enquiry, advised that the description should be amended by adding: "Pre-requisite: Consent of Instructor."

(2) Botany:

Botany 201: (as per listing.) Involves only change of wording.

Botany 320: (as per listing.) This change involves a reorganization of material as between the two terms.

Botany 350: (as per listing.) This represents a change of course description.

Botany 501: Two members, Professors Wyman and Elder, wondered what the purpose was of this proposed course. On enquiry, the Department has asked that the course be withdrawn from consideration.

Botany 321: This course, Plant Geography, requires as Professor Wonders explained, a Zoological and Botanical background which Geography students do not as a rule have. This course was designed, therefore, with that need in mind and hence the pre-requisites. Professor Wyman wondered if Zoology 220 was in fact a realistic pre-requisite; he felt either Zoology or Botany would meet the requirement. The Committee recommended that the pre-requisites be stated as two of Zoology 220, Botany 201 and Geography 201. The Committee also recommended that the second sentence of the description be amended to read "Normally to be taken in sequence with Zoology 321."

(3) Political Science:

Political Science 310: (as per listing.) Involves minor change in wording.

Political Science 551: (as per listing.) The Chairman stated that he foresaw problems arising from the up-grading of a course which in effect makes it a new course and the Committee felt that this was in the result such a new course.

Political Science 561: (as per listing.) Here again, the Committee felt this was more than a mere course change, but held that it was a new course. This particularly as Political Science 362 was being dropped.

Political Science 350: The Chairman suggested the Committee should have confirmation that this course was, in fact, being dropped, and this was subsequently confirmed.

Political Science 331: This is a new course.

Political Science 371: This is a new course.

Political Science 381: This is a new course, and Professor Wyman asked whether it was to be given by others than members of the Department since the description does not say. The Chairman pointed out that Faculty Council in any event approved courses, not the instructors.

(4) English:

English 200: Professor Elder stated this was a mere change in description; the course content has already been changed.

English 390:

English 394: This involves, stated Professor Elder, a slight change in content and description.

English 682: Professor Elder advised that this course will now include poetry prior to 1939.

English 395: This is a new course, continuing on from English 200.

English 671 and 672: These, Professor Elder explained, are new graduate courses offered by new members of the Department.

Calgary Courses:

Professor Elder explained that Calgary wished to develop courses more suited to the size of their Department.

English 240: This, Professor Elder stated, will be the common first year course, in contrast to our practice wherein we have the various first year courses referable to Agriculture, etc.

English 312, 342, 368, 382: Professor Elder explained that these courses are peculiarly designed for Calgary, combining where possible to meet the shortage of instructors. Professor Wyman asked whether this practice in Calgary would not affect the status of any students who might come here from Calgary, to which Professor Elder replied in the affirmative. Why do it, then, asked Professor Wyman? Professor Elder explained that the

Department here does not like it either. English 368 for example, combines Victorian Poetry and Prose, whereas here, there is a separate course for each. The Chairman interjected that the principle had already been approved and further discussion was dropped.

English 386: Note correction of number from 387.

English 389 and 391: These courses are given here also.

(5) Zoology: All as listed. No comments arose.

(6) History:

History 382: The Chairman stated that this course was being offered at the request of a member of the Department. Professor Wyman suggested that the words "Middle East" be inserted in the body of the description, and this change was agreed upon.

(7) Physics: All as listed. The Chairman advised that the changes on page 8 reflect current development in the realm of Physics.

(8) Chemistry: All as listed.

(9) Philosophy and Sociology:

The Chairman pointed out that the Sociology Department was expanding to embrace Anthropology. All as listed on attached sheets, exception latter description of 356 expanded "Philosophy of Kant."

Philosophy 360: As the Chairman observed that this did not appear to be the same course, it was referred back to the Department. A new description was later furnished and the chairman was informed that the description given was an accurate resume of the course.

(10) Economics: All as listed.

(11) European History: This was referred back to the Department for renumbering as there already exists a History 200. The number 201 was later assigned.

(12) Modern Languages: All as listed.

Russian 100: The Chairman pointed out that Russian is not a language of matriculation in Alberta as the number A implied. Professor Wyman was opposed as he felt we would be invading the prerogative of the Department of Education in making it, in effect, a language of matriculation. The Committee went on record as being opposed to this change. Professor Greene agreed to withdraw this recommendation and submit it via Faculty Council to the appropriate matriculation committee.

Polish: The Chairman pointed out that here again, if this change were approved, we would be opening a door so to speak. We would be accepting Polish as a Junior Language in the same category with French and German, for example. Professor Moore explained that Polish was being introduced to broaden our students in Slavonics since, as graduates, they found themselves at a disadvantage. The Chairman suggested that the Committee record its appreciation of the wishes of the Department, but the Committee felt the proposal should be submitted without comment. The Committee felt that Polish did not have sufficient literary content. Italian, also proposed, the Committee agreed to treat in the same way. Although no one denied the literary value of the language, the Department should justify its request for each language.

Ukrainian:

Here again the Committee was of opinion that there was insufficient literary content in the language and the Committee wished to go on record against the proposed deletion of the note on page 137, particularly as Faculty Council has already ruled on the matter.

Linguistics: All as listed.

Comparative Literature: The Chairman asked if these (referring to 390, 394 and 398) would be "A" Division options, to which Professor Moore replied in the affirmative. Professor Moore thought that perhaps these courses should be designated Honours and Graduate courses, as they attained a rather high level for undergraduates. The Committee signified its agreement with this, recommending that they be so designated.

Comparative Literature 620, 649, 695: As listed.

3. Petitions:

The Chairman introduced the case of Miss Marjorie E. Hoey, who wishes to attain her B. A. degree at Calgary following her B. Ed. degree obtained at the University of British Columbia. Her difficulty is that she would only have six credits to be applied at this University, leaving her with sixteen courses to complete. The Chairman felt that possibly some concessions might be made by granting additional credits for a senior English taken by correspondence from the University of Saskatchewan, and for English 300, Art 302 and Music 303 taken at the University of British Columbia. The Committee was not prepared to grant credit in the English course taken by correspondence, but did agree that she be given credit for the English 300, Art 302 and Music 303 in addition to those already recognized.

The meeting adjourned at 6.15 p. m.

J. D. Bleakly

fe Chairman

Secretary.

Laboratory courses already being offered within Music 250 and 350 now to be extracted and designated as follows:

Music 251. Form and Analysis (0-1; 0-1)

The basic principles of musical structure. A study of binary and ternary forms, the sonata, concerto and fugue.

Textbook: Macpherson, Form in Music.

Music 351. Harmonic Analysis (0-1; 0-1)

Analysis of chord structure and all types of non-harmonic movement. Chromatic harmony in the various periods up to Debussy.

Music 251 and 351 are required for all students enrolled in Music 250 and 350 respectively.

First Practical Subject in the B.Mus. Program

As the first group of candidates for the degree of B.Mus. enters its final year, it is apparent that at least one of the students will not complete the requirements of the First Practical Subject (A. Mus. Diploma). This means that the degree will be withheld until this deficiency is corrected.

In the case of B.Mus. students lacking this one requirement, I would like the Council to approve that a time limit of two years be granted them in order that they may complete the requirements of the First Practical Subject. Also that the responsibility of correcting this deficiency be the student's.

Addition under Note II First Practical Subject (p. 79 of current calendar):

All students in the B.Mus. program are required at the completion of this program to have had three years of instruction, at University level, in their First and Second Practical Subjects.

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II. Department of Psychology

(1) New Courses:

Psychology 472. Comparative and Physiological Psychology (3-1; 3-1)

R. C. Miles

An analysis of behavior with reference to phylogenetic difference and physiological mechanisms.

Prerequisite: Psychology 202 and Zoology 220, or consent of instructor.

Psychology 500. Psychology Proseminar (4-0; 4-0)

An intensive survey of the major areas, problems, and methodologies in the field of psychology.

Required of all students in the fourth year of psychology.

Psychology 528. Advanced Psychometric Theory (3-1; 3-1)

Principles of psychological measurement with stress on test theory, psychophysical methods and scaling, and factor analysis. Includes such topics as reliability, validity, item analysis, law of comparative judgment, centroid analysis, simple structure, and factorial applications in psychology.

Prerequisites: Psychology 430 and Statistics 205.

Psychology 574. Seminar in Philosophy and Psychology (2-0; 2-0)

J. R. Royce (Psychology) and P. Radcliff (Philosophy)

A study of the fundamental methodological, conceptual and philosophical issues in psychology.

(2) Course Changes:

Statistics 305 - Change the course number to 205. (The Department of Mathematics has been contacted.)

Psychology 382 - Change the word sociological to social. Drop the words "the mature personality".

Psychology 530 - Delete the course description. Change prerequisites to read Psychology 430 and Statistics 205.

Psychology 572 - Insert the words "Research in" at the beginning of the title.

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(3) Course Deletions:

Psychology 342 - Psychology in Relation to Human Welfare

Psychology 432 - Theory of Psychometrics

Psychology 580 - The Study of the Individual

III. Department of Geography

(1) New Courses:

Geography 303. Weather and Climate (3L-0; 3L-0)

A systematic study of weather processes and phenomena, regional weather patterns, climatic classification, and climates of the continents with some consideration of climatic trends. Laboratory work will include the interpretation of weather and climatic maps and local weather patterns.

Prerequisite: Geography 201 or consent of the instructor.

NOTE: This is a C division course.

Geography 412. Latin America (3-0; 3-0)

A survey of the physical features of Middle and South America, followed by consideration of aboriginal peoples, settlement by the Europeans and a regional analysis of the individual countries.

Prerequisite: A course in geography, or consent of the instructor.

Geography 414. Africa (3-0; 3-0)

A general survey of the physical geography of the continent, its colonization and resources, followed by detailed regional studies.

Prerequisite: A course in geography, or consent of the instructor.

Geography 500. History and Nature of Geography (1-2s; 1-2s)

Geography from ancient times to the present; the most important geographers and an assessment of their contributions; significant contemporary geographic concepts; current major developments within special branches of geography; geography in other countries.

Prerequisite: Consent of the instructor.

Geography 405. Introduction to Theoretical Meteorology. (3L-0; 3L-0)

A study of the physics of the atmosphere, including thermodynamics, stability, equations of motion, friction and turbulence, mechanics and structure of cyclones and anticyclones.

Prerequisite: Mathematics 201, Physics 240.

NOTE: This is a C Division course.

(2) Course Changes:

Geography 501 - To the course description add "NOTE: This is a C Division course".

Geography 406 - A change in prerequisite from "One of Geography 1, 50, 51, 201, 300, 302 or consent of the instructor" to "A course in geography or consent of the instructor".

Geography 501 - A change in prerequisite from "One of Geography 1, 50, 52, 201, 300, 301 or consent of the instructor" to "A course in geography or consent of the instructor".

IV. Department of History

(1) New Courses:

History 201. European History (3-1s; 3-1s)

European civilization since the Renaissance.

History 382. The Middle East (3-0; 3-0)

A survey of the political and social history of the Middle East with emphasis on the period since 1853.

V. Department of Philosophy and Sociology

(1) New Courses:

Anthropology 202. Elementary Anthropology (3-1; 3-1)

An introduction to the field of anthropology, including human paleontology, race, human prehistory, linguistics and ethnology.

Anthropology 350. Indians of North America (3-1; 3-1)

A survey of the cultural and linguistic areas of aboriginal North America, and including a comparative and historical study of technology, social organization, economic systems, religions, art and language. Some emphasis will be given to the Indians of Canada.

Sociology 490: Medical Sociology (3-0; 3-1)

A survey of the sociology of medicine and the role of sociology in medicine. Analysis of sociological concepts relative to the field of medicine will be made, along with a review of recent research in such areas as attitudes toward illness and health, hospital organization, medical services, etc. Research will be carried out by students.

Prerequisite: Consent of instructor.

Sociology 390: Industrial Sociology (3-1; 3-1)

A sociological analysis of the industrial system; industry and society; the industrial community; management-labour relations; bureaucracy; the sociology of work and the professions; informal organization in the work group.

Philosophy 346. Religion in Classical Times (3-0; 3-0)
(An historical and philosophical survey; also listed as Classics 346)

A. D. Winspear

Lectures will be given on the totemic background of ancient religion, Matriarchy, the Homeric Pantheon, the Chthonic deities, the Mystery Religions, the Religion of Numa, Gnosticism, Syncretism.

References: Guthrie - The Greeks and their Gods
Warde Fowler - The Religious Experience of the Roman People

(To be offered in Calgary only)

Philosophy 348. Nineteenth Century Philosophy (3-0; 3-0)

Philosophy 574. Seminar in Philosophy and Psychology (2-0; 2-0)

P. Radcliff (Philosophy) and J. R. Royce (Psychology)

A study of the fundamental methodological, conceptual, and philosophical issues in psychology.

Philosophy 556. The Philosophy of Kant (3-0; 3-0)

Philosophy ~~558~~ 570. Philosophy of Language (3-0; 3-0) as amended Prof. Mard Jan. 31

(2) Course Changes:

Change Sociology 302 to Anthropology 302. Course description, etc. unchanged.

Change Philosophy 260. Introduction to Logic and the Theory of Knowledge to Philosophy 260. Introduction to Logic, Semantics and Scientific Method.
Course description unchanged.

Change Philosophy 324. Modern Philosophy to Philosophy 342. Philosophy from Descartes to Kant.

Philosophy 360 - Change of name and course description:

Philosophy 360. Symbolic Logic (3-0; 3-0)

This course treats the following topics: inference and argument; validity and consistency; the sentential calculus; the predicate calculus; the calculus of identity; the theory of descriptions; formalization of logic and the axiomatic method; Syntax and Semantics; the deduction theorem; the Post and Hilbert-Ackermann consistency proofs; concepts of independence and completeness of a formal system; elementary theory of sets (classes); Boolean algebra and existence-free logics.

Prerequisite: A previous course in Philosophy, or consent of instructor.

VI. Department of Physics

(1) Course Changes:

The following are changes in hours and prerequisites:

Physics A and 100 to become (3-3; 3-3)

Physics 200 to become (3-3; 3-3)

Physics 240. Corequisite: Mathematics 201 (Mathematics 200 may be accepted by special permission)

Physics 320 should read (2-0; 1-3)

Physics 340 to become (3-3; 3-3)

Physics 360 should read (3-3; 3-2s)

Note to be added: Credit may not normally be given for both Physics 360 and Mathematics 310.

Physics 380 to be (3-3; 3-3)

Physics 470 and 480. Prerequisite or corequisite: Mathematics 420 or 421 and 422.

Physics 510. Prerequisite: Mathematics 304 or 420 or 421 and 422.

Physics 520, 540, 550, 560. Prerequisite: Mathematics 420 or 421 and 422.

Physics 540 to become (2-0; 2-0). Delete words "One hour per week ... problems."

Physics 570 to become (2-1s; 2-1s). Prerequisites: Mathematics 421, 422 and 430.

The following are changes in descriptions:

Physics 440. Electronics (2-3; 2-3)

Theory and use of electron tubes and solid state devices, including four-terminal active and passive networks; equivalent circuits; resonant and coupled circuits; filters; amplifiers and oscillators; non-linear circuits; digital and analog circuits.

Prerequisite: Physics 340 or 380, Mathematics 304 or 306.

Physics 471. Advanced Laboratory (0-3; 0-3)

Methods in experimental atomic physics and spectroscopy.

Corequisite: Physics 470.

Physics 480. Electromagnetism.

Potential theory; description of electromagnetic field using vector methods; Maxwell's equations; Electromagnetic waves in continuous media and in guides. Selected topics in electromagnetism.

Physics 510. Thermodynamics and Kinetic Theory

Add "thermodynamics of irreversible processes."

Physics 571. Advanced Laboratory (0-4; 0-4) or (0-7; 0-7)

Methods in experimental atomic physics, spectroscopy and nuclear physics, introduction to modern laboratory techniques. The number of hours required and the experiments assigned depend upon the student's complete fourth year program.

Prerequisite or corequisite: Physics 470.

VII. Department of English

(1) New Courses:

English 240. A Survey of English Literature (3-0; 3-0)

A survey of English literature from Chaucer to the present day. Frequent essays will be set to afford practice in composition.

(To be offered in Calgary only.)

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English 312. Old and Middle English (3-0; 3-0)

Selections from the prose and poetry of the Old and Middle English periods.

(To be offered in Calgary only.)

English 342. The Seventeenth Century (3-0; 3-0)

Selections from the prose and poetry of the seventeenth century.

(To be offered in Calgary only.)

English 368. Victorian Poetry and Prose (3-0; 3-0)

Representative prose of Ruskin, Carlyle, and others. Selections from Tennyson, Browning, Arnold, Clough, and some minor poets. Selected novels.

(To be offered in Calgary only.)

English 382. Modern British and North American Literature (3-0; 3-0)

A study of representative British and North American authors who have made original contributions to English literature in this century.

(To be offered in Calgary only.)

English 386. The Development of Modern English (3-0; 3-0)

The study of the nature and development of the sounds, grammar, vocabulary, and spelling of the English language.

(To be offered in Calgary only.)

English 389. Elizabethan and Jacobean Drama (3-0; 3-0)

A study of the English drama from 1580 to 1642. Among the dramatists to be studied will be Kyd, Marlowe, Shakespeare, Jonson, Webster, and Ford.

(To be offered in Calgary only.)

English 391. A Survey of the English Novel (3-0; 3-0)

A study of the English novel from Defoe to the present day.

(To be offered in Calgary only.)

English 395. English Literature from the Late Eighteenth Century On. (3-0; 3-0)

A close study of representative masterpieces.

English 671. Studies in Victorian Poetry (3-0; 3-0)

English 672. Studies in the Victorian Novel (3-0; 3-0)

(2) Course Changes:

English 200. English Literature from Chaucer to the Late Eighteenth Century.

A close study of representative masterpieces. Essays and tests on the prescribed literature will be given to afford practice in setting down ideas in good English.

English 390. The Development of English Drama to 1800

A historical and critical study of English drama from its beginnings to the end of the eighteenth century. The works examined will include specimens of mediaeval drama and plays by Marlowe, Jonson, Webster, Dryden, Congreve, Sheridan, and others.

English 394. English Literature of the North American Continent.

A selection of representative major writers.

English 682. Studies in Twentieth Century Poetry

VIII. Department of Chemistry

(1) New Courses:

Chemistry 589. Statistical Mechanics (0-0; 3-0)
F. W. Birss

An introduction to statistical mechanics. Applications to problems of chemical interest will be stressed.

References - Mayer and Mayer: Statistical Mechanics. Gurney: Introduction to Statistical Mechanics. Hill: Introduction to Statistical Thermodynamics.
Prerequisite: Chemistry 583.

(This course is to be offered second term of 1960-61 session.)

Chemistry 591. Radiation Chemistry (0-0; 3-0)
D. A. Armstrong

Brief discussion of radiation sources; interaction of radiation with matter; chemical effects of radiation.

Prerequisite: Chemistry 370 or 372.

(To be offered in Calgary and, if staff is available, in Edmonton.)

d4 k

Chemistry 593. Spectroscopy and Molecular Structure (0-0; 3-0)

To be arranged.

A study of the spectral characteristics of matter. This will include the application of ultra-violet, visible, infrared, microwave, Raman, atomic, N.M.R. and E.S.R. spectroscopy to problems of molecular structure.

Prerequisite: Chemistry 350 or 450 and Chemistry 370 or 372.

(To be offered in Calgary and, if staff available, in Edmonton.)

(2) Course Changes:

Chemistry 557 - change number to 657.

This course is now restricted to graduate students, so the number should be in the 600 range.

Chemistry 372 - remove Mathematics 304 from the prerequisites.
Add: Prerequisite or corequisite Mathematics 304.

Chemistry 553 - Add: Prerequisite or corequisite Chemistry 450 or 550.

Chemistry 583 - Quantum Mechanics (0-0; 3-0)

F. W. Birss

An elementary course in quantum mechanics with application to chemical problems.

Prerequisite: Chemistry 370 or 372

Chemistry 611 - Change hours from (0-0; 3-0) to (3-1; 0-0)

Chemistry 511 - Change hours from (0-0; 3-6) to (3-6; 0-0)

Chemistry 581 - Change hours from (3-3; 0-0) to (3-6; 0-0).
Add prerequisite Chemistry 370 or 372.

Chemistry 531 - Change hours from (3-3; 0-0) to (0-0; 3-3).

IX. Department of Mathematics

(1) New Courses:

Mathematics 616. Topics in Functional Analysis (3-0; 3-0)

Selected chapters from the theory of linear spaces and operators, harmonic analysis, spectral theory and applications. The content may vary from time to time.

Prerequisite: Mathematics 500 and consent of the instructor.

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Mathematics 621. Ordinary Differential Equations (Advanced) (3-0; 3-0)

Existence and uniqueness theorems; dependence of solutions on parameters and on initial conditions. Linear differential equations. Linear systems with isolated singularities of the first and second kind. Asymptotic behavior of nonlinear systems; stability.

Prerequisite: Mathematics 421 or equivalent.

Mathematics 652. Nuclear Structure (3-0; 3-0)

Current knowledge of nuclear structure will be interpreted in terms of nuclear models and the foundations and limitations of these models discussed. Particular attention will be paid to the shell model, the optical model, and the collective model.

Prerequisite: Consent of instructor.

X. Department of Political Economy - Economics

(1) New Courses:

Economics 504. Econometrics and Mathematical Economics (3-0; 3-0)

An introduction to econometrics and a survey of mathematical economic theory.

(2) Course Changes:

Economics 200 (1). Principles of Economics (3-0; 3-0)

Members of the Department

A survey of various aspects of economics: the nature of economic problems and systems; the functions of money; commercial and central banking; national income analysis; monetary and fiscal policy; pricing under competitive and monopolistic conditions; selected topics in analysis and policy.

Economics 300 (60). Micro-Economic Analysis (3-0; 3-0)

The theory of consumer behavior; price and output determination under competition, monopoly and other market structures; the allocation of resources and resource pricing; the distribution of income.

Prerequisite: Economics 1 or 200, or 51 or 302.

Economics 310 (61). Canadian Economic Development (3-0; 3-0)

M. J. Boote

The relative growth of various industries and the regional distribution of economic activity with emphasis on the role of export staples, technology, capital accumulation and government.

94.m

Economics 311. Western European Economic Development (3-0; 3-0)

M. J. Boote

The development of the economy of Western Europe since the middle ages with emphasis on economic change in the United Kingdom, France and Germany.

Economics 320 (64). International Trade (3-0; 3-0)

T. L. Powrie

An analysis of the theoretical basis of international trade, the theory of balance of payments adjustments, and related problems. A survey of the development of the economy of the North Atlantic community in the Modern period, with special emphasis on attempts to broaden trade and investment since the end of the Second World War.

Prerequisite: Economics 1 or 200, or 51 or 302.

Economics 330 (65). Labor Problems (3-0; 3-0)

A survey of the nature of labor economics and labor problems, including the various approaches of organized workers and employers to these problems. The approach of government to labor problems, including industrial disputes and social security. Applications of economic analysis to wages, unemployment and related problems.

Economics 350 (67). Public Finance (3-0; 3-0)

E. J. Hanson

A survey of principles and operations relating to government expenditures, revenues and debts. The objectives and techniques of fiscal policy in a theoretical framework, with emphasis on the level of economic activity, distribution of income and allocation of resources.

Prerequisite: Economics 1 or 200, or 51 or 302.

Economics 370 (69). Industry and Government (3-0; 3-0)

An examination of the structure and functioning of industry; investment and market problems; the relationships of government and industry with special reference to price and output problems.

Prerequisite: Economics 1 or 200, or 51 or 302.

Economics 380. Macro-Economic Analysis (3-0; 3-0)

W. D. Gainer

National income concepts and determination; the theory of aggregate consumption and investment; business cycle and growth applications of aggregative analysis.

Prerequisite: Economics 1 or 200, or 51 or 302.

94r

Economics 390. Comparative Economic Systems (3-0; 3-0)

I. Moravcik

A comparative study of the institutions and theories of important contemporary economies and systems of economic organization, with emphasis on the "mixed" capitalist system, "command" economies of the Soviet type, and transitional systems embodying socialist as well as capitalist principles. A survey of socialist economic thought with emphasis on the economics of Marx.

Prerequisite: Consent of instructor.

Economics 391. The Soviet Economy (3-0; 3-0)

I. Moravcik

The Soviet economy; its development and institutional arrangements, particularly the central direction of economic activity; ideological sources of Soviet economic policies; the economics of socialism; Soviet economic performance and problems of its evaluation.

Prerequisite: Economics 1 or 200, or 51 or 302.

Economics 400 (101 and 501). History of Economic Theory (3-0; 3-0)

A survey and analysis of economic ideas and theories from ancient times to the present.

Prerequisite: Economics 1 or 200, or 51 or 302.

(3) Course deletions:

Economics 471. Business and Government (3-0; 3-0)

An analysis of the changing structure of the business sector and its relationship to the state and the rest of the economy.

Economics 613 (131) Economic Geography (3-0; 3-0)

Department of Political Economy - Political Science

(1) New Courses:

Political Science 331. Government of the United States (3-0; 3-0)

R. Baird

A study of the politics of the United States with emphasis on formal institutions in themselves and in relation to the rest of society.

Political Science 371. Governments of the United Kingdom and Commonwealth (3-0; 3-0)

W. Dawson

A study of the structure and functioning of the government of the United Kingdom, and the adaptation of the Cabinet System in selected countries within the Commonwealth.

Political Science 381. Governments of France and Germany (3-0; 3-0)

To be announced

A study of the structure and functioning of the governments of France and Germany.

Political Science 501. Comparative Political Institutions (3-0; 3-0)

Members of the Department

A comparative study of the political institutions of democratic and non-democratic states.

(NOTE: This course is an up-graded 330 for Honors students; it will require considerably more background than 330.)

Political Science 551 (59 and 350) Public Administration (3-0; 3-0)

W. Dawson

A comparative study, with special reference to Canada, the United States, and Great Britain, of the following:

the growth of the administration;
the civil service and its problems;
the theory of administration;
the organization and control of the government bureaucracy.

Political Science 561. International Organization (3-0; 3-0)

G. R. Davy

A study of the historical development, structure and functions of international organizations, with special emphasis on the League of Nations, United Nations and Specialized Agencies.

Political Science 591. Parties and Pressure Groups (3-0; 3-0)

R. Baird

A study of the role of political parties and pressure groups in the governmental process.

Political Science 601. Comparative Political Institutions (3-0; 3-0)

Members of the Department

Political Science 690. Political Behavior (3-0; 3-0)

R. Baird

(2) Course Changes:

Political Science 310 (63). History of Political Thought (3-0; 3-0)

B. Bociurkiw

A historical and critical survey of the development of political and social philosophy from Ancient Greece to the present time, with selected readings from major political writers.

(3) Course Deletions:

Political Science 330. (58). Comparative Government

Political Science 350 (59) Public Administration

Political Science 362. International Affairs in the 20th Century.

Political Science 531. Federal and Local Government

I. Department of Botany

(1) New Courses:

Botany 321. Plant Geography (0-0; 3-0)

R. G. H. Cormack

A study of the earth's main vegetational types and the significance of their present day distribution. Normally to be taken in sequence with Zoology 321. Open to students in the third year of Botany and Zoology patterns and to students in the Geography patterns.

Prerequisites: Any two of Botany 201, Geography 201 or Zoology 220 or consent of instructor.

Botany 501. Advanced Physiology (3-0; 0-0) or (0-0; 3-0)

G. A. Maclachlan

Literature surveys, reports and discussion of current research, with emphasis on biochemical advances and on the fields of specialization of the students involved.

Prerequisite: Botany 320 or Biochemistry 350.

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(2) Course Changes:

Botany 201. Introductory Botany (2-4; 2-4)

G. A. Maclachlan, J. G. Packer

Basic anatomy and physiology of flowering plants. Survey of structure, life-cycles and evolution of the main groups of the plant kingdom.

Text: Botany--Hill, Overholts, Popp and Grove, 1960.

Botany 320. Plant Physiology (3-3; 3-3)

J. H. Whyte, G. A. Maclachlan

Physical phenomena in living cells; water relationships of plants. Respiration, photosynthesis and growth.

Prerequisites or Corequisites: Botany 201; Chemistry 230; Chemistry 250 or 350.

Botany 350. Lower vascular Plants (3-3; 3-3)

Lorene L. Kennedy, H. J. Brodie

The evolution and morphology of the lower vascular plants and Gymnospermae.

(3) Course Deletions:

Botany 505 (105). Advanced Physiology

II. Department of Zoology

(1) New Courses:

Zoology 470. Animal Behavior (3-0; 3-0)

S. A. Altmann

Behavior as an adaptive phenomenon. The genetic, anatomical, neurological and hormonal bases of behavior. The structure of animal societies. The systematic, ecologic and evolutionary significance of behavior.

Prerequisite or corequisite: Zoology 440, or consent of instructor.

Zoology 362. Elementary Animal Ecology (3-3; 0-0)

An introduction to the principles governing the relationships between animals and their environments.

Prerequisites: Zoology 300, 350. Zoology 300 may be taken as a corequisite with the instructor's permission.

(To be offered in Calgary only.)

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Zoology 421. Principles of Evolution (3-0; 0-0) or (0-0; 3-0)

Darwinian and post-Darwinian concepts of evolution; mechanisms of evolution; drift; isolation; variation and other selected topics.

Prerequisites: Zoology 300, 350. Zoology 300 may be taken as a corequisite with the instructor's permission.

(To be offered in Calgary only.)

Zoology 450. The Arthropods (3-3; 3-3)

An introduction to the structure, development, biology and economic significance of the Arthropoda.

Prerequisite: Zoology 350.

(To be offered in Calgary only.)

(2) Course Changes:

Zoology 300 becomes The Chordates.

Zoology 464 should be (3-3; 0-0) instead of (3-0; 0-0).

Zoology 452 becomes (0-0; 3-3) instead of (3-3; 0-0).

Zoology 555 becomes (3-3; 0-0) instead of (0-0; 3-3).

Delete prerequisites for Zoology 525.

Delete from Zoology 540 prerequisite list "Biochemistry 50 or 300. Biochemistry 300 may be taken as a corequisite with the instructor's permission."

Change prerequisites for Zoology 555 to read: "Zoology 55 or 406, 408 or instructor's permission."

(3) Course Deletions:

Zoology 564. Limnology

Zoology 566. Animal Behavior

I. Department of Modern Languages

(1) New Courses:

German 320. Second Year German Authors (3-0; 3-0)

Reading and study of selected German texts. Composition and conversation.

Corequisite: German 300; otherwise consent of the Department.

(Comment: This course would correspond to Spanish 320 and Russian 320,

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and is designed to fill a gap. At present an Honors student who began German at the University can take only one German course in his second year. If he wishes to major in German, his progress is therefore unduly retarded.)

Russian 545. Seminar in Slavonic Philology (1-0; 1-0)

Prerequisite: Introduction to Comparative Slavonic Philology 540 (115a).

Russian 680. Slavonic Civilization (3-0; 3-0)

Linguistics 410. General Phonetics (3-0; 3-0)

A study of the speech organs and of speech production. Types of speech sounds. Phonetic analysis and extensive transcription practice using several Indo-European languages, as well as Eskimo and American Indian languages. Introduction to phonemic theory and analysis.

Linguistics 420. Phonemics, Morphemics and Syntax (3-0; 3-0)

Phonemic theory and analysis; the relation of phonetics to phonemics. Theory and Methods of grammatical analysis, stressing the identification and analysis of the morphological and syntactic units of a language. Examples will be taken from several Indo-European languages as well as Eskimo and American Indian languages.

Prerequisite or corequisite: Linguistics 410.

(Not offered in 1961-62)

Linguistics 430. Contrastive Linguistics (3-0; 3-0)

An analytical study of the French and English languages, comparing and contrasting their linguistic structure, i.e. phonetics, phonemics, morphology, syntactical patterns and lexicology. Practical work in oral recognition and phonetic transcription.

(2) Course Changes:

On page 126 of the current calendar, under Senior courses, delete the second sentence: All except French 350 ... etc.

Spanish 320 - change last sentence as follows:

Corequisite: Spanish 300 or 360 or 370. This course may be taken by Honors students as an additional second year course, and by students in the Foreign Languages pattern as an additional third year course, but it will not replace a regular third year course (Spanish 360 or 370).

German 100 - change hours to (3-2; 3-2).

French 600. French Medieval Literature (3-0; 3-0)

A study of selected texts from La Chantilène de Sainte-Eulalie, La Vie de Saint-Alexis, La Chanson de Roland, Les Lais of Marie de France, Tristan et Iseult by Thomas and Béroul, the beginnings of drama, lyric poetry from Chrétien to Villon.

French 605. Chansons de geste and Roman courtois (3-0; 3-0)

An intense discussion of the "Carolingean" and the "Arthurian" Epic: Roland, Chronique de Turpin, Pélerinage de Charlemagne, Mainet, Anseïs de Cartage, Couronnement Louis, Chanson de Guilleume, Aliscans, Tristan, Erec, Cligés, Lancelot, Perceval. The Frankish, Spanish and Celtic origins. Medieval Latin forerunners and classical prototypes. The transformation of history into myth. From the early theories to those developed in the Société Roncevaux and the Société Internationale Arthurienne.

Spanish 602. The Poem of the Cid (3-0; 3-0)

A careful study of the Poema together with the Cartularios del Cid, the Carmen Campidoctoris, the Historia Roderici, the Spanish Chronicles and the Romancero del Cid. The critical works of Menéndez Pidal.

Spanish 605. Early Spanish Prose (3-0; 3-0)

Primera Crónica General: chapters on the Infantes de Lara, Bernardo del Carpio and Santiago. Las Siete Partidas and the local Fueros. The novel: Calila et Dimna, Conde Lucanor. The didactic writings and the popular Hojas sueltas from the Archpriest of Talavera to the Celestina.

Spanish 665. Contemporary Spanish Poetry (3-0; 3-0)

The works of Antonío Machado, Juan Ramón Jiménez, Federico García Lorca, Gabriela Mistral, Jorge Guillén, Rafael Alberti, and other Spanish and Latin American poets. Their forerunners and followers from Rubén Dario to our times.

(3) Course Deletions:

French 649. Franco-German Literary Relations during the Nineteenth Century

German 695. Anglo-German Literary Relations from the Sixteenth to the Nineteenth Century

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V. Department of Geology

(1) New Course:

Geology 402. Geology of Canada (3-3; 3-3)

The study of the geologic regions of Canada; their stratigraphy, structure and mineral deposits.

Textbooks: Geology and Economic Minerals of Canada, 4th edition (G.S.C.);
Geological Evolution of North America (T. H. Clark and
C. W. Stearm, 1960.)

Prerequisite: Geology 201.

Note: This is a general course designed as a senior Division C option, not to be taken by students majoring in Geology. It is to be offered in both Edmonton and Calgary.

SECTION B

Department of Modern Languages

The Executive Committee approves in principle the recommendation of the Department of Modern Languages to set up courses in the field of Comparative Literature. It feels, however, that these courses should be at the Honors and Graduate level.

Comparative Literature 390. Literary Naturalism (3-0; 3-0)

Literary theories from Zola to Farrell. The theatre: Paris, Berlin, Munich, Vienna. The naturalist novel from Zola to the present day. Typical themes: heredity, emancipation of woman, rise of socialism, etc. Survey of Naturalism in Scandinavia, France, Germany, Russia, England, United States, Spain and Latin America. Verism in Italy.

Guest speakers from various Departments.

Prerequisites: One senior English course and one senior foreign Language.

(To be offered in 1961-62 and alternate years by either C. H. Moore or Armin Arnold.)

Comparative Literature 394. Literary Romanticism from Rousseau to 1835 (3-0; 3-0)

The origins. A study of Romantic themes in French, German, English and Italian literature. Comparative studies of Romantic prose and poetry in Germany, England, France, Italy, Spain, Poland and Russia.

Guest speakers from various Departments.

Prerequisites: One senior English course and one senior foreign language course.
(To alternate with Comparative Literature 390.)

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Comparative Literature 398. Medieval Literature (3-0; 3-0)

French and German courtly epic: Tristan, Perceval, Guillaume, Arthurian and Grail legends. Love lyrics: Troubadours, Trouvères, Minnesänger and their relationship with Spanish-Arabian parallels. The Goliards. Drama: from the tropes to the opera. Farce and comedy. The novel from its beginning to the 16th Century.

Open to senior students of French and German.

Comparative Literature 620. Comparative Slavonic Literature (3-0; 3-0)

Comparative Literature 649. Franco-German Literary Relations during the Nineteenth Century
(formerly French 649)

Comparative Literature 695. Anglo-German Literary Relations from the Sixteenth to the Nineteenth Century
(formerly German 695)

(These courses would be A options, and should be listed on p. 47, as Comparative Literature.)

The Committee recognizes the need of the Department of Modern Languages for additional languages in Honors and Graduate programs. It feels, however, that the Department itself should justify the particular languages recommended and indicate to what extent the Department sees their use in pattern programs.

Italian 100. Beginners' Italian (5-0; 5-0)

An introductory course in Italian grammar and pronunciation. Readings of easy texts dealing with different aspects of Italian culture to provide a background for further studies.

Delete Romance Literature in English Translation (to be found on page 130 of the current calendar), which is to be replaced by Italian 350.

Italian 350. Italian Literature in English Translation (3-0; 3-0)

The origins of the sonnet and the canzone, Dante's Divine Comedy, the works of Petrarch, the lyric madrigal, the early novelists from Bocaccio to Masuccio, new concepts of drama: commedia dell' arte, commedia erudita and early opera texts, Platonist writers and the Arts: Ficino, Lionardo da Vinci, Michelangelo, the Renaissance epic of Ariost and Tasso, Mariniamo and the Baroque.

A survey course designed for students of French and Spanish literature, English, Drama and the Fine Arts.

(This course should be an A option, replacing Romance Literature in the list on page 47.)

Polish 100. Beginners' Polish (5-0; 5-0)

This course is elementary and is designed to give a working knowledge of the Polish language. It provides a study of the essentials of grammar, reading and drill on useful expressions.

Polish 300. Second Year Polish (3-0; 3-0)

Advanced Polish grammar, composition, and oral practice based on selected texts of Polish classical and contemporary literature.

Prerequisite: Polish 100 or the instructor's consent.

(Not offered in 1961-62)

SECTION C

Department of Modern Languages

The Executive Committee is opposed to the following change suggested by the Department of Modern Languages because of the stand adopted by Faculty Council at its meeting of December 1st, 1958 (see page 413).

Under Ukrainian (on page 137 of the current calendar) delete the note *:

"In the Faculty of Arts and Science credit towards a degree is given only in the honors program in Modern Languages and in the Foreign Languages pattern. Students in the honors program may take Ukrainian as a second Slavonic language but students in the Foreign Languages pattern are restricted to one Slavonic language and may not present Ukrainian if they present Russian."

(Comment of Department of Modern Languages: Experience has shown that only a few students wish to register for this language in any case, and of these few, most have a legitimate reason.)

Petitions:

To be reported by the Faculty Secretary.

The eleventh meeting of the Executive Committee of the Faculty of Arts and Science was held on Friday, December 23rd at 10:00 a.m. in the office of the Dean. Present were Dean Smith, Chairman; Professors Wyman, Hanson, Elder, and Wonders; and the Faculty Secretary.

1. Minutes of the meeting of November 22nd, 1960:

The minutes of the meeting of November 22nd, 1960 were approved as circulated.

2. Calendar Changes:

Zoology 515. Introduction to Mathematical Biology (3-0; 3-0)
S. A. Altmann

Fundamentals of logic, sets, combinations and permutations, probability, vectors, matrices and stochastics; restricted to finite, discrete cases. Mathematical models of various biological phenomena such as genetic coding, nerve nets, social organization, kinship relations, fertility and so forth.

Prerequisite: Zoology 220 or consent of instructor. Not ordinarily open for credit to students who have taken Mathematics 270 (47).

The Chairman reminded the meeting that some objection had been raised to this course because of its mathematical content. He had discussed the course with the Head of the Department of Mathematics and with the Department of Zoology. A letter had been received from Professor Nursall reaffirming their desire to give this course, which would permit integration of mathematical and biological concepts. The Department of Mathematics approved the course, however reluctantly.

Professor Wonders expressed agreement with Professor Wyman as to the waste arising from overlap. Professor Hanson felt that students should have a full course in Mathematics before entering upon another course requiring mathematical knowledge. Professors Wyman and Hanson could see overlap creeping into all academic fields, but how else could integration be effected? The report of a committee of General Faculty Council on this problem will soon be considered.

Professor Hanson pointed out that, if the Departments concerned are agreed, the Committee can do little more. The Committee agreed that the course be approved.

Zoology 321. Animal Geography (3-0; 0-0)

An outline of the distribution of the major groups of animals in time and space, together with the presentation of ecological and geological theories to explain the observed distributions.

Normally to be taken in sequence with Botany 321. Not open to honors students in Zoology.

Prerequisites: Any two of Botany 201, Geography 201 or Zoology 220, or consent of instructor.

The Chairman explained that this course, which had previously been omitted, is the companion piece to Botany 321. Professor Wonders stated that the content and plan of the course had been agreed upon by the Departments of Geography, Botany, and Zoology. The Committee approved the course for introduction.

Mathematics 641. Automatic Digital Computers and Programming (3-6; 3-6)

Scientific applications of accounting machines, and development of automatic computers. Storage systems, arithmetic units, input and output mechanisms. Arithmetic in general radix. Simple algebraic logic. Logical systems of control (one address, three-address, etc.)

Flow diagrams. Construction and use of library routines. Codes of principal types of machines, with detailed knowledge of one machine.

Each student will be expected to solve several problems on a computer. Students should have a knowledge of elementary coding before entering this course.

References: Wilkes, Wheeler and Gill.
The preparation of programmes for an electronic digital computer.
Alt, Electronic Digital Computers.
Co-requisite: Mathematics 640.

Since this course is designed for the graduate school, Professor Hanson suggested that a listing of pre-requisites was not necessarily required. The Chairman, however, was of opinion that prerequisites should be specified, since the Department of Mathematics cannot otherwise control registrations in it. The course was approved subject to advice from the Department as to the pre-requisite necessary. (The Department has since specified Mathematics 640 as a co-requisite.)

Sociology 395. Sociological Foundations of Social Work (3-1; 3-1)

The development of social work as a social institution; a consideration of various philosophies and practices of social work; social work as a part of community organization; current trends and problems; a study of the structure and function of private and public agencies. Field trips will be used.

Prerequisite: Sociology 202 or Psychology 202, and consent of instructor.

The Chairman explained that he had prevailed upon the Department to change the title of this course to "Sociological Foundations of Social Work" from "Sociology of Social Work".

The Chairman further said that this course was deemed advisable both for general education and as a background for those students who might wish to go on into social work following a degree here. Professor Elder suggested that "Field trips will be undertaken" rather than "Field trips will be used" was the better form of expression, to which the Committee agreed. The Committee approved the course.

Music. The Music Division had asked that the B.A. music pattern be amended so that Third Year of the Program would permit students to take either Music 350 or 500, rather than a requirement for Music 350 as it now stands. This was asked because some students had found Music 350, Advanced Harmony and Counterpoint, too difficult but were able to cope with Music 500, an Historical course. The Chairman said that this request had been referred to the Patterns Committee which had expressed the opinion that it was more than a Patterns matter.

Professor Hanson asked why, if Music 350 too difficult, did the division not re-number the courses? The Chairman read the description of Music 500, and it was agreed that Professor Elder will discuss re-numbering this course with Professor Eaton. (This has since been done and the Department has agreed to renumber the course Music 410.)

Professor Wyman said that he was of opinion that this Committee should not deal with the reports of the Patterns Committee, but that its reports should go direct to Faculty Council. It was decided to report to Faculty Council that:

(a) because of the proximity of the January meeting of Faculty Council it had been impossible to obtain and review the reports of the Patterns and Honors Committees; and

(b) that this Committee recommend to Faculty Council that the sentence "It shall review the reports of the Committees on Honors and Patterns" in the minutes of the meeting of Council of November 3, 1958 reproduced under the head "Terms of Reference" on page 1 of the Executive Committee Minute Book, be deleted.

History 326. History of Czechoslovakia and Poland (3-0; 3-0)

A survey of the historical development of the major peoples among the West Slavs.

The Chairman read the covering letter from the History Department. The Committee noted discussions between the Departments of History and Modern Languages had clarified their respective jurisdictions. The Committee approved the course.

Physics 590 (to be offered in Calgary only), and Physics 592. The Committee approved these courses.

3. Appointments to Committees:

(a) Honors Committee

The Chairman reminded the Committee that all departments presenting Honors programs were represented on this Committee. Professor Royce, Head of the new Department of Psychology was proposed for appointment as a member of the Honors Committee; Professor Gainer was proposed by Professor Hanson as his Department's representative on the Honors Committee. The Committee approved both appointments.

The Chairman pointed out that since Microbiology had been approved in principle as a new course, possibly it should have a representative on the Honors Committee. It was decided, however, to defer such appointment until Faculty Council shall have considered the new course.

It was decided to leave the matter of replacement of a member of the Honors Committee from Zoology until the wishes of the new Department Head are known.

Professor Wonders reluctantly admitted that he had not been approached to serve on the Honors Committee, and he was promptly nominated by the Committee to so serve.

The Chairman reported to the meeting that Professor Greene wishes to remain on the Honors Committee, but with the privilege of utilizing Professor von Richthofen whenever he may require an alternate.

The Secretary was instructed to check the minutes to determine who is the formal representative on the Honors Committee from the Department of Chemistry, Professor Gunning or Professor Davis. This discussion raised a query as to whether there was in fact constitutional authority permitting a representative of the Honors Committee to delegate his authority to an alternate.

(b) Revisions Committee

The Chairman said that it will be necessary for this Committee to meet towards the end of January. It has been the custom for the Chairman on retirement to be replaced by the next senior member. Professor Laycock has been suggested as the next Chairman. This, of course, will mean the appointment of a new member of the Committee, and in addition the term of Professor Jacka has expired requiring a replacement.

The Committee approved the appointment of Professor Laycock as Chairman and that of Professors Buck and Garland as serving members, the latter two for a term of four years.

(c) The Committee on Ways and Means to Establish a Four Year Program

It was agreed that this Committee should comprise a member of the former committee, a representative from Calgary, a member familiar with the views of the Board of Governors, and preferably a member who has served on the University Senate, to a maximum number of seven. After some discussion the following appointments were approved:

Professor A. A. Ryan, Chairman
H. J. Brodie
W. D. Gainer
E. F. Guy
W. G. Hardy.

It was agreed that the Dean should sit on the Committee ex officio but with power to vote.

4. Other Business:

It was agreed that emphasis should be placed on the report of the Promotions Committee by Council at its meeting in January and that resumption of the curriculum committee should be deferred to a later meeting.

The meeting adjourned at 12:20 p.m.

Chairman

Secretary

The Twelfth meeting of the Executive Committee of the Faculty of Arts and Science was held on Wednesday, January 18th, 1961 at 3:30 p.m. in the office of the Dean. Present were Dean D. E. Smith, Chairman; Professors Wyman, Hanson, Elder and Harris (the latter sitting as alternate for Professor Wonders).

1. Minutes of the meeting of Friday, December 23rd, 1960

The Chairman suggested that, since the minutes of the meeting of December 23rd had been prepared but not yet circulated, reading would be deferred until the next meeting. The Committee agreed.

2. Calendar Changes

English 250. A course in English for students in Engineering (2-0; 2-0)

The reading of representative works of English literature, with some practice in writing.

The Chairman outlined a request submitted by the Faculty of Engineering for the introduction of an English course for Engineering students which would be similar to English 210 but less weighty. The matter had been raised and considered some years ago but had at that time been rejected by the Board of Governors because of the high estimated cost. At this time, he said, the estimated costs were about one-third of the previous estimate and the Faculty of Engineering had again submitted the question.

The Dean went on to describe some of the preliminary discussions. The Faculty of Engineering had contemplated two hours' lecture and two hours' study period per week, whereas the Department of English were insisting upon two hours' home study for each one hour lecture period--and the Department were insisting that the course go forward for consideration with this proviso.

This led Professor Wyman to suggest that surely the question of the adequacy of the home study period was the concern of General Faculty Council.

Too, he wondered if we were being fair to the students involved, who would be in class more than 30 hours per week. What, he asked, is to be dropped to permit this innovation?

Professor Harris felt the students should be given a reasonable load and then expected to do reasonably well with it.

The Committee agreed that it was in favor of both the course and the proviso and that the recommendation of the Department of English be approved.

Classics. It was proposed that re-numbering of courses be effected as follows:

Latin 353 to become 373.	Greek 352 to become 382.
Latin 354 to become 374.	Greek 353 to become 383.
Latin 355 to become 375.	Greek 354 to become 384.

The Chairman outlined the confusion which had in the past arisen from the similarity in numbers of several Greek, Latin and Classics courses and the proposed re-numbering was designed to eliminate this difficulty. The Committee agreed upon the changes recommended.

Physics 592. Problems in Biophysics (2-0; 2-0)

This course will aim to co-ordinate the concepts of physical science with those of the biological sciences in the study of biological problems.

Prerequisites: Physics 340 and Zoology 220; or consent of instructor.

The Chairman reminded the Committee that Council had directed this Committee to consider the recommendations of the Departments of Physics, Botany, and Zoology upon the matter of pre-requisites for this course. The Chairman had conferred with Professor Challice in Calgary by telephone who recommended Physics 340 (which in itself requires Physics 240) and Zoology 220 as pre-requisite to the course. He said that the course would be of primary interest to students in Honors Physics but might also attract students in the Biological sciences.

Professor Wyman asked if this would be a laboratory course, and in reply the hours scheduled were read: (2-0; 2-0). The Secretary read the names of the proposed textbooks and authors.

The Chairman was of opinion that the prerequisites should be outlined to guide students in preparing for the course, and asked the wishes of the meeting in this regard. The Committee expressed agreement with the view of the Chairman, several members being of opinion that prerequisites should be clearly set forth with all graduate courses. It was agreed that the Chairman resolve the prerequisites for the course after a further consultation with the Department of Botany and Professor Challice. (This was done and the approved prerequisites are: Physics 340 and Zoology 220; or consent of instructor.)

3. Other Business

The Chairman referred to the calendar regulation in which the terms "option" (student's choice) and "approved option" (Department choice) were distinguished. The First Year of many patterns show only "an option" and some students select a senior course--whereas the Chairman was of opinion that Council in fact meant to specify by the term option a "junior option from Division B". Professor Hanson moved that the term "junior" be inserted in all cases where the expression occurs in First Year. The Committee agreed upon the motion.

Special Case.

The Chairman raised the case of Donald McMillan King, a student of Glasgow University formerly in the General B.Sc. course of three years. Unfortunately, at Glasgow he apparently failed his Physics in his final year else he would have obtained his degree there. Coming to Canada, he taught in the Provincial Institute of Technology and Art in Calgary. In August, 1960, he interviewed Dean Smith as to his requirements to complete his degree here.

Dean Smith informed him that he would be required to complete at least five courses, and that more might be required of him. He was asked to make formal application for admission, and to submit his documents in support; a definite ruling could then be given.

Mr. King sent in his application and documents, which required exhaustive check with several different departments to assess his qualifications. The time required and the press of other registration matters resulted, unfortunately, in his application being for a time mislaid. He inquired about his status before registration week, and was admitted, on the understanding that his advance credits would be determined later. So the matter stood until Mr. King again presented himself for interview and at which time his credits were assessed at nine courses leaving him six to complete. He was told, however, that he might be granted an additional credit if he would submit to and qualify in an examination in Geology 351. Mr. King then claimed that he had been told that he would need only five additional courses and that he would not have registered had he been told otherwise. He has submitted letters showing that he had been admitted to five-course programs at Queen's and Western. Dean Smith insisted that it had been made plain that more than five courses might be demanded, and that the ruling must stand. Mr. King was informed he could appeal to Faculty Council. He withdrew at that time, but now has appealed the ruling.

Mr. King had been absent about three weeks of the first term because of illness of his mother in Scotland. He realizes that he must obtain second-class standing in three courses, and may face some difficulty in doing so. These factors probably influenced his decision to withdraw.

The Committee agreed that Mr. King should meet the 6 course requirement, pointing out he could attain the additional credit by taking the examination in Geology suggested. It was influenced by the fact that Mr. King had withdrawn while the decision was pending, and thus is free to register in this program or in a five-course program at another university.

The Chairman asked the Committee for advice in a matter of administration, namely, the sectioning of courses at registration. This involved, he said, a consideration of the suitability of the present Tentative Course Selection Form. Something like a 15% error had been found in the Tentative Course Selection Forms approved and submitted by departments. Itwas, therefore, proposed that a new type of form be adopted, showing the pattern requirements on the left and reflecting the student's attainments and remaining requirements as he progressed from year to year. On the reverse there would be space for notes setting out the precise options. The time and trouble in keeping these forms would, in the opinion of the Chairman, be justified.

Professor Harris said that he thought the adoption of such a form would curtail error; Professor Elder was skeptical that students would contact the departments as they should, which prompted Professor Hanson to observe that this was a responsibility of the departments concerned.

Generally, the Committee were in agreement with the adoption of some such form.

The meeting adjourned at 5:00 p.m.

Douglas E. Smith

Chairman

Secretary

The thirteenth meeting of the Executive Committee of the Faculty of Arts and Science was held on Wednesday, March 29th, at 3 p. m., in the office of the Dean. Present were Dean Smith, Chairman, Professors Hanson, Wonders, Elder and Moore (the latter sitting as alternate for Professor Wyman.)

1. Minutes of the meetings of December 23, 1960 and January 18, 1961:

The minutes of the meetings of December 23, 1960 and January 18, 1961, were approved as circulated.

2. (a) Calendar Changes:

Physiology 501 - Change hours from (3-0;0-0) to (0-0;3-0)

Physiology 503 - Change hours from (3-0;0-0) to (0-0; 3-0)

Physiology 504 - Change hours from (0-0;0-3) to (0-3;0-0)

Physiology 505 - Change hours from (1-6;0-0) to (0-0;1-6)

Physiology 600 - Change hours from (0-0;1S-0) to (1S-0;1S-0)

These proposed changes, it was explained, merely transposed lecture and laboratory periods as between the two terms, and were approved on the recommendation of the Department.

(b) New Courses:

Archaeology 220 - North American Archaeology (3-1;3-1)
A general survey course in the prehistory of the main culture areas in North America, including Mexico, from the time of the earliest populating of the New World to historic times. Lectures will include discussion of methods, techniques and interpretations in Archaeology. Students will be required to participate in laboratory work.
(To be offered at Calgary only, 1961-62.)

This course has been suggested by the Department of Philosophy and Sociology, to be offered at Calgary where an instructor is available from the Glenbow Foundation. The University at Calgary is prepared to appoint this man as a Sessional Instructor. Professor Elder enquired if the course would be in "B" Division, and was told it was so presumed. The Chairman explained that it was originally proposed to appoint an Archaeologist to the staff of the History Department in Edmonton, but the provision for such had been cut from the budget. The Committee approved the course with a change of name from Anthropology to Archaeology.

Geography 416 - Industrial Geography (3-0;3-0)
A systematic geography focussing attention on manufacturing and raw materials, transport, energy and markets in their areal context and in relation to manufacturing. Emphasis will be placed on the geographic analysis of the character of representative manufacturing areas including major manufacturing regions as well as underdeveloped territories.
Prerequisite: Geography 302 or consent of the instructor.

Geography 508 - Land Use Analysis and Planning (1-2S;1-2S)
The geographic background to urban and regional development; analysis of land use patterns and problems in urban and rural areas; use of this analysis in the preparation of urban and regional development plans.
Prerequisite: Geography 410 or consent of the instructor.

Professor Wonders explained that these courses became possible through the addition of Dr. Farrell to his staff. He also explained that introduction of the courses had been delayed pending negotiations with the Faculty of Commerce as to suitability and content. Professor Hanson pointed out a possible conflict between Geography 508 and Geography 460, and between Geography 410 and the last portion of the description of Geography 460.

The Chairman expressed concern with the possibility of overlap between the Faculties of Arts and Science and Commerce. If, he said, the Commerce Faculty should offer what is essentially an Arts and Science course, then this Faculty is certainly concerned. It has been suggested, he went on, that where such an overlap genuinely exists, a joint appointment be made.

Dr. Wonders is to check and ensure that there is in fact no overlap, and he is to ensure that the new courses are brought to the attention of the Dean of Commerce so that should he have any objections on the ground of overlap they could be entertained now and not later. The Committee approved the courses subject to the check by Dr. Wonders on overlap.

(c) Special Cases:

Chappel, John H: The Chairman explained that this student, taking a B. A. after the B. Ed. degree in the Geography pattern, wishes to substitute Geography 403, in which he has credit, for Geography 301. His reason is that 301 is not available in Summer Session or in the Evening Credit Program. Professor Wonders confirmed the difficulty and pointed out that this difficulty was going to be a deterrent to teachers enrolling in the Geography pattern, and it was desirable that teachers have this pattern available. The Chairman asked how many would be similarly affected, to which Professor Wonders replied that there was at this time only one other such so far as he could recall. The Chairman suggested that if there are to be many such cases, the Geography Pattern should be altered to eliminate such difficulties. Professor Wonders stated that full-time Pattern students are required to have Geography 301 and if there is to be a change in the Pattern then this particular course should be included as an approved option. The Committee agreed with granting the applicant relief in this case, but should there be many requests of this kind, it felt the Pattern must be changed.

Cornett, Barbara Anne: This student, presently in Honors Physiology, has petitioned for a Pass Degree this year. She will, in the normal course, complete her third year of her program this current session.

The Committee agreed that she might revert to the General Course.

Dale, Linda: Miss Dale, currently in an Honors Political Science program, had written Dean Smith in the middle of February last asking that she be considered eligible, on successful completion of her current term, for the Pass Degree this Spring as she was getting married and moving to the United States. Dean Smith had replied expressing his inability to give her positive ruling before the Revisions Committee meets after examinations, but reassuring her that her circumstances were such as to warrant similar concessions in the past.

The Committee agreed to confirm the Dean's action.

Lee, Judith: Miss Lee failed rather badly in her first year in 1958-59, and was required to withdraw. She achieved in that year, however, a mark of 72 in Art 42 (now 250). In the term 1959-60 she was allowed to take as a Special Student, Sociology 202 and French 200, achieving 65 and 54 respectively. In 1960-61 she is back as a full-time student in Sociology and her grades reflect definite improvement. She asks for credit in the Art course of her first year, and in the Sociology 202 and French 200. Additionally, she asks that she be permitted to register this coming Summer Session in two courses, so she may complete a full second-year program. The Committee was of opinion that the request was both unusual and premature. The Chairman asked if the Committee might be prepared to approve her petition conditionally upon some set standard of performance, but the Committee stated she should demonstrate her ability in her current year's work first. Her petition for credit in the three courses was granted, but she was not granted the privilege of Summer Session asked. The petition was accordingly rejected in part.

The Chairman expressed the opinion that the whole policy regarding such cases should be reviewed at an early date by Faculty Council.

MacFarlane, John Robert: Mr. MacFarlane completed two years in a B. Sc. pattern, - one year pre-Dental and one year Experimental Psychology - but concluded he would not gain admission to Dentistry. He is now registered for a third year, seeking a B. A. in the English pattern, and thereafter wishes to secure a B. Ed. degree. He will have extra to his requirements Genetics 451 and the combined Mathematics and Psychology course in Statistics, from his B. Sc. program. Since he would like to meet the requirements of the English pattern and a certificate in Education by means of two regular sessions and a Summer Session, he petitions that Faculty Council recognize that Mathematics 305 and Psychology 334 equite a Senior B Division option.

The Chairman pointed out that in effect, the petitioner asks that a "C" Division course be substituted for a Senior "B" option. To this the Chairman expressed himself as not sympathetic; he pointed out that refusal would mean that Mr. Macfarlane would be required to take a Senior "B" course, but that the extra courses would be reported to the Dean of Education, and might be applied to the B.Ed. program.

The Committee felt that to grant the petition would be to set an unfortunate precedent, and the Petition was rejected.

MacLeod, Alan Ross: This student is being allowed by the Faculty of Education, as a special case, to take the normal courses for the Education degree over a four-year period, and also to take two courses per summer school. At the end of the fourth academic session he will have completed requirements for a B. Ed. degree and have as well four extra courses which he hopes may be counted on a B. A. thereafter. He hopes to get his B. A. by taking two Summer School courses after his B. Ed. The question is: May he do so?

The Chairman referred to a letter dated March 25th, written MacLeod by the Assistant Dean, in which in effect approval of the projected operation had been already given. He also outlined the rule whereby students are normally confined to enrollment in five courses per year, the rule having been designed to give the student as balanced a year as possible. Professor Elder asked whether the rule had not in fact been breached before, to which the Chairman replied only in special circumstances such as on transfer from another University, etc. He also emphasized that this student was not yet in this Faculty, and that our rule cannot be applied to him. Professor Wonders asked if the Faculty of Education had accepted similar proposals stemming from Arts to Education, and was told by the Chairman they had, but without enthusiasm.

The Committee agreed that the decision be confirmed.

McDermid, Gordon N: This student requires for a B. A. degree, one History course and a Biological Science. Since he cannot take both in one Summer Session because of the hours, he petitions to substitute a Physical Science for the Biological. He plans to enroll in Education in the fall term.

The Committee agreed that his petition will be granted if he obtains four second class marks in his current term.

Promislow, Ruth L: Miss Promislow petitions that she be granted a degree on the basis of her work to date plus seven additional courses to fit the need of the Fine Arts Pattern. She will actually lack a half-course for the required fifteen, but she has a number of credits in Art obtained elsewhere which would not normally be counted here. With this concession, she could qualify for her degree in one more session plus a Summer Session.

The Committee agreed that her petition be granted.

Schloss, Barry M: This student, a transferor from Engineering, asks that he be given full first year credit in this Faculty. He claims that a member of the Department of Mathematics assured him that he would be given such credit on transfer, that he would not have transferred otherwise, and that he was told he need not see the Dean of this Faculty on transfer. The Chairman stated to the meeting that it was the general practice on such transfers to allow only four credits. The member of the Department concerned, he said, does not recall having told this man he would receive five credits on transfer or that he needn't see Dean Smith. Dr. Blackley, asked to appear before the Committee to throw what light he might upon the matter, suggested as a solution that he be given additional credit if he obtained a 70% average in his final year. Professor Hanson felt this premature and wondered if he couldn't be allowed to take six courses next year. Dr. Blackley replied that the student had expressed fear of attempting such a program.

The Committee agreed that the petition should be refused at this time, with leave to the petitioner to renew his petition after the results of his current term are known.

There being no other business, the meeting adjourned at 4.50 p. m.

Douglas E. Smith

Chairman

Secretary

The fourteenth meeting of the Executive Committee of the Faculty of Arts and Science was held on Friday, April 28th, 1961, at 3 p. m. in the office of the Dean. Present were Dean Smith, Chairman; Professors Hanson, Wyman, Elder and Harris (the latter sitting as alternate for Professor Wonders.)

1. Minutes of Meeting of March 29th, 1961:

The minutes were approved as circulated.

2. The Chairman referred to the sudden and tragic death of Professor Unrau, the motion passed at the last meeting of Council, and raised the matter of policy in such matters. He felt the customary tributes in such cases have grown very long in recent years. He wondered if something simpler might be appropriate, especially as there have been a great number of laudatory references in the case of Professor Unrau, in other Councils, and he had not been a member of this Faculty for more than a few months.

Professors Wyman and Hanson could not agree, being of opinion that the tribute should be paid as customarily. The Chairman then suggested that the tribute prepared by Professor Brodie be sent to Mrs. Unrau now, and Faculty Council be so informed at its next meeting. To this the meeting agreed.

3. Acceptance of Courses Approved by Other Faculties:

The Chairman reminded the meeting that Microbiology 401 was included in the Microbiology Pattern which had been approved by Council. This course has been approved by the Faculty of Medicine and the General Faculty Council. He asked that it now be approved as a course in this Faculty. The Committee agreed.

The Chairman then referred to Education 276, as there have been several enquiries asking if this Psychology course is acceptable in the Arts programs. As Education 176, the course was not accepted by this Faculty; but it has since been moved to second year, re-designed and an acceptable textbook adopted. It has still, however, a strong Educational content. No doubt since the alteration in the course, it is more akin to our Psychology 202. Can we then accept it as an option, and as a prerequisite for our own Psychology courses?

Professor Wyman said that he would be opposed to such acceptance. Much the same situation exists, he said, between the Mathematics Department and the Faculty of Engineering in many instances and the Department does not accept the courses concerned. Professor Hanson said he was inclined to agree, but suggested that if a student were to transfer from Education to Arts consideration might then be given.

Professor Elder asked what is the stand of the Psychology Department in the matter, to which the Chairman replied that the Department would prefer to have the course offered under its supervision.

Professor Harris asked if credit for the course might not be given in this Faculty without the fact appearing in our Calendar. The Chairman explained that credit can be given in his office to students transferring from other Faculties, for courses reasonably equivalent to our courses.

It was agreed that Education 276 be accepted on the transfer of a student to this Faculty from Education, but that the course should not be open to our students for credit, nor should the course appear in our Calendar as being available for credit to our students.

4. Advisory Committee on Space Allocation and Planning:

This topic was on the agenda as a result of a letter from Professor Hanson, who opened the discussion by referring to the continued need for space, reporting that several Department Heads in this Faculty have met to discuss the subject but without any tangible results.

Professor Wyman asked if they have met with the Space Committee, which led the Chairman to observe that the present Space Committee is concerned primarily with allocation of available space, rather than proposals for new space. Insofar as new space was concerned, he continued, a Social Science Building was projected but he did not know just where the planning stood in that regard now. Professor Hanson said that six of our Faculty members interviewed the President about two years ago and were told that a Social Science Building was projected for completion in 1961 or 1962 at a cost of Two Million Dollars. Nevertheless the building seems more remote than ever.

Professor Wyman said that despite their new quarters, the Mathematics Department is already crowded for space, which led Professor Hanson to observe that his staff look with longing at the two new buildings and wonder why their Department Head isn't able to secure some similar accomodation for them.

The Chairman, in reply to a question, observed that it was his understanding that if such a Committee is formed in this Faculty it would be acting for both the Arts and the Science Departments in the Faculty. Professor Harris expressed the opinion that such a Committee, if formed, would be concerned surely with more broad concepts than the immediate concerns of this Faculty.

Professor Hanson, nonetheless, was of opinion that this Faculty should have a Praetorian Guard to wage the fights of this Faculty and see that its requirements are met as, in his opinion, Departments can accomplish very little individually. He then referred specifically to the proposals as contained in his letter, reading them to the Committee, with particular reference to the contemplated duties of the Committee.

Professor Wyman stated that in his opinion, such planning as proposed is for specialists such as Architects, and not within the competence of the Departments. Departmental submissions, he suggested, should be limited to specific requests for area.

The Committee agreed that there should be a Committee of the Faculty to deal with space problems, but would not completely endorse Professor Hanson's proposals. Professor Wyman expressed the view that the Committee should act in an advisory capacity to the Dean. Professor Hanson then suggested that we concentrate on securing a fighting unit for buildings for the Faculty. He went on to amend his designation of the Committee to read, "An Advisory Committee on Space Problems."

The Chairman was of opinion that it would be primarily a space planning committee, and only secondarily a committee advising our representative on the Space Allocation Committee. He suggested that nominations be entertained at this time.

Professor Hanson volunteered to act on the committee, and Professor Wyman promptly suggested he be Chairman. He also suggested that there be two members from Arts and two members from Science, plus the Chairman, a total of five members. Professor Wyman, on being asked, expressed his willingness to serve on the committee. In discussion, it was agreed that a committee of seven members would be more practical. Professors Greene, Peacock, Hirabayashi and Blackley were suggested as the additional members, with Professors Nursall and Wonders suggested as two alternates in the event that any of those named could not accept the appointment.

Special Cases:

Sellens, Sandra - Miss Sellens, in her final year of the B. A. (Music) program, was permitted to register this term in History 370 as an extra course. She has been ill, and felt that she would not do herself justice in the final examination. Since she wishes to enter the Faculty of Graduate Studies, she is apprehensive that her average will suffer if the History mark is included. She has therefore petitioned that either this mark be excluded from her average or, in the alternative, she be allowed to withdraw from the course. The Committee agreed to accede to her request that the History mark not be counted in computing her average- this in view of her good record.

Whitla, John Michael - This student, previously in the combined Arts and Law course, withdrew from it at the end of the second year to travel in Europe; but also planned to transfer as he had changed his mind as to his goal. He wishes next term to complete the work for a B. A. degree in the History pattern, but having decided to enter the study of Medicine, wishes in that program to take the four sciences necessary for admission to that Faculty, and one History course. The Head of the Department of History has agreed that he might take the science courses proposed, and that he might count Classics 356 as a History course for the needs of the pattern. The Chairman was of opinion that Mr. Whitla sought two concessions, but the Committee thought only one since the options in the History Pattern are not specified, and the science course could be accepted with Departmental approval, which has been granted. It felt, nevertheless, that there should not be too many science courses in any B. A. program.

In view of the approval already given by the History Department, the Committee agreed with some reluctance, to grant his petition.

5. Nominations:

(a) Committee on Matriculation in Ukrainian:

The Chairman referred to the Committee created by Faculty Council to consider the matters arising out of the question of approval of Ukrainian as a language of matriculation. The Committee named the following to this Committee: Professors Hanson, Hardy, Starchuk, Kreisel and von Richthofen, with Dean Smith acting ex-officio, the first named being suggested as Chairman. Dean Smith is to forward Professor Hanson the terms of reference for the Committee.

(b) Committee to Administer the General Science Pattern:

The Chairman informed the Committee that at the present time the following members comprised this Committee: Professors Davies, Harrold, Crosby, Whyte and Nursall. Its function, in addition to assisting with the completion of Tentative Course Selection forms and at registration, has been to sit as General Science Program Directors, since there is no Department to assume this task.

The Chairman has suggested that two members of the Committee, Professors Davis and Nursall, who have served long and faithfully, ought to be relieved of this responsibility. It was agreed that Professor Whyte should become Chairman, but that Professor Nursall should be retained for additional service, with one new appointee, Professor Darwish. In the result, the Committee will comprise: Professor Whyte, Chairman; Professors Harrold, Crosby, Nursall and Darwish.

The meeting adjourned at 4.45 p. m.

Douglas E Smith

Chairman

Secretary

The fifteenth meeting of the Executive Committee of the Faculty of Arts and Science was held on Saturday, October 28th, 1961, at 10:30 a. m. in the office of the Dean.

Present were Dean Smith (Chairman), Professors Elder, Hanson, Harris and Moore, and the Faculty Secretary.

1. Minutes:

Because of the short time available for this meeting, approval of the minutes of the previous meeting was deferred.

2. Calendar Changes:

(a) Calendar Changes - Summer Session 1962:

The Department of Modern Languages proposed the following courses:

Linguistics 440 - Cree Phonology and Structure (10-10)
A descriptive study of the sounds and structure of Cree. Intensive drill of basic patterns. The course aims at giving an active practical command of the language through working with a native informant and recorded materials.
(Originally authorized in 1958 as Linguistics 55. The content and hours of this course have been changed to place greater stress on the analysis and the learning of Cree. Introduction to field methods, previously a part of this course, is now offered in a separate course. A similar change was approved last year for Linguistics 450; Eskimo Language and Culture.)

Linguistics 460 - Field Methods in Linguistics (10-0)
Recording techniques and methods of analysis illustrated by the study of an American Indian language or Eskimo. Problems in translating. Native informants and recorded material will be available. (For greater flexibility, "American Indian language or Eskimo" has been substituted for "Cree".)
Add to pre-requisite "Linguistics 410 or 420."

Questions arose as to who would take these courses and their general purpose. It was explained that graduate students in linguistics need them, and others, particularly those whose work or interests lie in Indian or Eskimo territory, would find in these courses a background for learning any language existing in those areas. The courses are not language courses in Cree or Eskimo but use these languages as a prominent example to illustrate principles.

Department of Sociology: Sociology 305 redesignated Anthropology 305.

(b) New Courses:

The Department of Chemistry proposed a new course:

Chemistry 613 - Electroanalytical chemistry and Polarography (3-0;0-0)
W. E. Harris (Instructor)

Approval was requested retroactive to September 1961. This was approved.

3. Appointments to Committees:

Considerable discussion preceded the selection of individuals to serve on the Space and Alterations Committee and the Faculty Space Committee, necessitated by the scheduled absence of Professor Hanson and the expiry of Dr. Blackley's term as Assistant Dean.

The following appointments were approved (and subsequently have been accepted by the appointees):

(a) To be Vice-chairman of the Faculty Space Committee - Professor Ross, who is already a member of this Committee.

(b) To replace Professor Hanson as a member of the Faculty Space Committee during his absence in Europe - Professor Gainer.

(c) To act as alternate for Professor Hanson on the Space and Alterations Committee - Professor Greene.

(d) To replace Professor Blackley on the Faculty Space Committee - Professor Royce.

4. Special Cases:

William George Holden:

Mr. Holden has passed sufficient courses in the Chemistry pattern for the B. Sc. degree, has five second-class marks and one mark of 64; he petitions for his degree notwithstanding his lack of the sixth second. The Committee noted the following points:

(a) Four of five second-class marks are precisely 65.

(b) His marks include three supplementals and three re-reads; one pass mark and one second were achieved by supplementals and one second by re-read.

(c) The mark of 64 has been re-read, with no change in mark, implying the instructor did not regard it as a second-class paper.

(d) The student's whole record reflects indifferent ability, and his average over all courses, including any benefit derived from supplementals, etc., is 60.7%.

(e) The Chairman of the Revisions Committee, consulted informally, was not in favour of granting the petition.

The Committee could find nothing in the student's record to justify a departure from the principles govering the granting of degrees, and moreover felt that the petitioner had been accorded considerable indulgence already. Accordingly, the Committee unanimously declined the petition.

4. Regular Time of Meeting:

It was agreed the Committee should have a regular meeting time. The Secretary was instructed to cavass the members and select a suitable time some ten to fourteen days before the regular meeting time of Faculty Council.

5. Adjournment:

The meeting adjourned at 11.40 a. m.

Douglas E Smith

Chairman

Secretary

The sixteenth meeting of the Executive Committee of the Faculty of Arts and Science was held Tuesday, November 21st, 1961, at 10 a. m. in the office of the Dean; due to the considerable amount of calendar material the meeting was adjourned at 12.30 p. m. and reconvened at 10 a. m. Saturday, November 25th. These are the consolidated minutes of both sessions; they will reflect committee decisions which, in some cases, were taken after inter-session consultation with departments concerned.

1. Minutes:

The minutes of the previous meeting were considered, and it was moved by Professor Hanson, seconded by Professor Elder, that they be adopted.

Carried.

2. Business Arising From the Minutes:

(a) It was agreed that the Committee would meet regularly on the third Saturday of each month, at 10 a. m.

(b) A question was asked as to the powers of the committee being limited to recommendations to Council; the Secretary was instructed to peruse the minutes of Council and bring forward the terms of reference.

3. Calendar Changes:

(a) Department of English:

New Courses:

English 314 - Middle English Literature (3-0;3-0)
An introduction to some of the characteristic themes and forms of English literature between 1200 and 1500, excluding Chaucer and the Chaucerian tradition.

English 384 - Canadian Literature (3-0;3-0)
A historical and critical study of the literature of English-speaking Canada.

New Course Descriptions:

English 316 - Chaucer and the Chaucerian Tradition (3-0;3-0)
A study of the major works of Chaucer and of selected poets of the fifteenth century.

English 394 - American Literature (3-0;3-0)
A selection of representative major writers.

English 664 - Study in the Romantics (3-0;3-0)

The proposals of the Department of English were discussed and approved.

(b) Department of Geology:

The Department of Geology's submission included a proposal to retain Geology 469 - Geomorphology and Glacial Geology (3-3;3-3), with a changed calendar description, and to establish two half-courses, Geology 465 - Geomorphology (3-3;0-0) and Geology 466 - Glacial Geology (0-0;3-3), either of which could be taken alone, but which, if both taken, would constitute Geology 469; they proposed the same arrangement for half-courses Geology 460 - Metallic Mineral Deposits (0-0;3-3) and Geology 461 - Geology of Petroleum, Natural Gas and Coal (3-3;0-0), which together would amount to Geology 458 - Mineral Deposits (3-3;3-3).

This was discussed at some length, with one member remarking on the proliferation of half courses, and suggesting that this trend might provide considerable encouragement to the advocates of the semester system; he did not object to these half courses per se. The Dean said he would prefer to see Geology 458 and 459 dropped; the Department having been consulted, this was agreed to.

In discussing the proposed change in the description of Geology 402, the numbering of this course was queried; after consultation with the Department and with the Faculty of Education, it was agreed that the course would be more appropriately numbered 302.

Similarly, in considering Geology 370, presented as the laboratory portion of Geology 460, it was considered that the number should be 470. However, on consultation with the department, it was found that there are some Engineering students who take this laboratory as a special course, so with the proviso that reference to Geology 460 be omitted from the Calendar statement, the number 370 was agreed to.

Three proposed new Graduate courses, Geology 610, 611 and 612, were considered to be more appropriately described as seminar courses, so with the agreement of the Department, the hours for these courses were approved as (3s-3;0-0) or (0-0;3s-3); also it was agreed by the Department that with the designation as seminar course, the description provided for Geology 612 was redundant.

(My notes here indicate that some fears were expressed at the absence of prerequisites, the feeling being that this might encourage improperly prepared applicants. Dr. Wyman was to consult the Department as to this, but my later notes on his report of his discussions with Geology refer only to the inclusion of the 's' to indicate 'seminar'; it may be that in my limited knowledge of the implications of a seminar course, I assumed this also resolved the matter of excluding such applicants.)

With these modifications, the following proposals of the Department of Geology were approved:

New Courses:

Geology 370 - Ore Microscopy (0-0;0-3)
Microscopic study of the ore minerals.

Geology 465 - Geomorphology (3-3;0-0)
A study of land forms and the processes which create and modify them; map reading; field trips.

Geology 466 - Glacial Geology (0-0;3-3)
A study of glacial features and their relation to physiographic development; map reading; field trips.

Geology 460 - Metallic Mineral Deposits (0-0;3-3)
Classification, mode of occurrence, and geological relations of various types of mineral deposits.

Geology 461 - Geology of Petroleum, Natural Gas and Coal (3-3;0-0)
Classification, mode of occurrence and geological characteristics of petroleum, natural gas and coal.

Geology 610 - Isotope Geology (0-0;3s-3) or (3s-3; 0-0)

Geology 611 - Palynology (0-0;3s-3) or (3s-3;0-0)

Geology 612 - Ore Deposits (0-0;3s-3) or (3s-3;0-0)

New Course Descriptions:

Geology 302 - Geology of Canada (3-3;3-3)
S. J. Nelson
Geology of the Physiographic provinces of Canada, including stratigraphy, structure, mineral deposits and historical geology, with emphasis

on western Canada. Rock and mineral identification; interpretation of geologic maps; palaeontology - distribution and evolution of the various animal and plant groups from Precambrian time to Recent.

Textbooks: Geology and Economic Minerals of Canada 4th ed. (G.S.C.)
Clark and Stearn, Geological Evolution of North America.
Prerequisite: Geology 201.

Courses discontinued:

Geology 458 - Geomorphology and Glacial Geology (3-3;3-3)

Geology 459 - Mineral Deposits (3-3;3-3)

(c) Department of Modern Languages:

Some discussion occurred over the submission for the Slavonic Languages Division. Certain Calendar amendments were proposed based on the recent acceptance by Council of Russian as a language of matriculation. The Committee felt that as there are comparatively few students offering Russian for matriculation and for the immediate future the small number of competent teachers would keep this number small, any modification to the calendar statement dealing with matriculation language was somewhat premature. Accordingly these amendments were deleted.

Another matter for discussion was the statement appended to the calendar description of the scientific language courses, Russian 210 and German 210, which strongly recommends the sequent course. In the view of Professor Wyman, strongly supported by the Dean, this was encouraging students in Honors courses to elect the recommended sequent course even at the expense of courses in their selected subject. In a formal motion, it was moved by Professor Wyman, seconded by Professor Hanson, that the exhortation to take the sequent scientific language course be deleted from the calendar description of Russian and German 210. The motion was carried.

Three new Polish courses were proposed. Of these Polish 502, a second year honors laboratory course, was approved. The other two were Polish 360 - Historical Survey of Polish Literature from the Renaissance to the Present (3-0;3-0), and Polish 503, a third year honors laboratory. The need for 502 was apparent, and this course was approved. However, it was felt that until a demand arose for further studies in Polish, 360 and 503 could well be deferred.

The Department also recommended the redesignation of Russian 540, 545, 600 and 680 as Slavonic Studies 540, 545, 600 and 680 respectively. While agreeing that the courses were not accurately named Russian, the Committee felt the title "Slavonic Studies" was far too broad; the term "Slavonic Studies" has a connotation of a much broader field, embracing Economics, Political Science, History, etc. Accordingly, it was proposed that the courses be entitled "Slavonic Languages and Literature." Although the Department of Modern Languages was none too enthused at this designation, the Committee decided to recommend it to Council.

As a consequence of the foregoing discussion and decisions, the following proposals of the Department of Modern Languages were approved:

New Courses:

Spanish 699 - Conference Course
An honors or graduate course designed to meet the needs of individual students. It will consist of a detailed study of some great author or literary question not dealt with in the other honors or graduate courses.

Italian 300 - Second Year Italian (3-0;3-0)
A study of selected contemporary prose and poetry from D'Annunzio and Pirandello to Moravia and Quasimodo. Advanced grammar and phonetics.
Pre-requisite: Italian 100

Italian 502 - Practical Study of the Italian Language (0-1;0-1)
Second year honors laboratory course.

German 330 - German Language and Culture (3-0;3-0)
A study of German phonology, grammar and style. Lectures and assigned reading on German life, literature and civilization.
Pre-requisite: German 200 or consent of the Department.

German 380 - The Age of Goethe (3-0;3-0)
A study of the life and thought of Goethe and his contemporaries, as reflected in their works. Lectures, discussions and reports; composition and oral work.
Pre-requisite: German 200 or consent of the Department.

German 390 - History of the German Language (3-0;3-0)
An historical survey of the major periods of the German language. Foreign influences on German style and vocabulary. The relationship between language, history and literature.
Pre-requisite: One senior GERMAN course or consent of the Department.

German 695 - Bibliography and Methodology (2-0;2-0)
(hitherto given under German 699: Conference course)

Russian 560 - History of the Russian Language (3-0;3-0)

Polish 502 - Practical Study of the Polish Language (0-1;0-1)
Second year honors laboratory hour.

Ukrainian 502 - Practical Study of the Ukrainian Language (0-1;0-1)
Second year honors laboratory hour.

Ukrainian 503 - Practical Study of the Ukrainian Language (0-1;0-1)
Third year honors laboratory hour.

New Course Descriptions:

German 200 - First Year University German (3-1;3-1)

This course is devoted to the development of the student's ability in speaking, reading and writing German, using modern short stories, cultural readers and visual aids.

Pre-requisite: Matriculation German, German 100 or the equivalent.

Russian 350 - Russian Literature in English (3-0;3-0)

A study of major Russian authors of the 19th and 20th centuries with special emphasis on their works in the large context of Russian cultural evolution. This evolution will be illustrated from the Department's collection of slides on Russian art, architecture and natural environment.

This course is an A option for second and third year students in Arts and Science. It is not open to honor students in Russian.

Courses Discontinued:

German 300 - Intermediate German (3-0;3-0)

Other Changes:

German 320 - Change co-requisite to "German 200, otherwise consent of the Department."

German 370 - Add to the description, "Composition and oral work."
Change pre-requisite to "German 200 or consent of the Department."

German 400 - Change pre-requisite to "One senior German course or consent of the Department."

German 450 - Change pre-requisite to "One senior German course or consent of the Department."

Russian 400 - In course description, after Mayakovsky, insert "Akhmatova, Pasternak."

Russian 540 - Change to "Slavonic Languages and Literature 540."

Russian 545 - Change to "Slavonic Languages and Literature 545."

Russian 600 - Change to "Slavonic Languages and Literature 600."

Russian 680 - Change to "Slavonic Languages and Literature 680."

In the descriptive paragraphs under "B. German," page 131 of the 1961-62 Arts and Science Calendar, the following changes:

(a) In the last sentence of paragraph 1, change "German 300" to "German 200."

(b) In the last sentence of paragraph 1, delete "...but the Department may require registration in German 200."

(c) In the second paragraph, delete "...and proceed to German 350 or 370."

(d) Department of Mathematics:

New Courses:

Mathematics 670 - Topics in Algebra
Pre-requisite: Consent of the Instructor.

Mathematics 671 - Topics in Analysis
Pre-requisite: Consent of the Instructor.

Mathematics 672 - Topics in Geometry
Pre-requisite: Consent of the Instructor.

Mathematics 673 - Topics in Applied Mathematics
Pre-requisite: Consent of the Instructor.

Mathematics 674 - Topics in Statistics
Pre-requisite: Consent of the Instructor.

Other Changes:

Mathematics 645 - Change hours to (3-0;3-0)

The foregoing proposals of the Department of Mathematics were discussed and approved.

(e) Department of Fine Arts - Music Division:

The Dean explained that difficulty with Music courses was encountered by Summer Session students and administration due to the laboratories linked to certain courses being described in the Calendar as separate courses. In effect these students registered for two courses, but under three course descriptions, thus apparently violating the rule limiting Summer Session registration to two courses, and also requiring the Bursar to charge them fees for three courses. To eliminate this problem, Professor Eaton has submitted what appears to be a massive re-alignment of Music courses; in practice, however, the new courses are simply the result of combining, under one course name and number, the course and the appropriate laboratory.

The Music Division also brought to the attention of the Committee the fact that "B. Mus." was omitted from the calendar regulations dealing with first class standing, and also was not made subject to the provisions dealing with second class standings. This the committee agreed to rectify. However, another proposal by the Music Division, that B. Mus. students be eligible for the Arts and Science Gold Medals, was not approved; apart from the very small number of graduates in the B. Mus. program, which might lead to an award to one out of two or three students, there is also the question of the donor, who would have to initiate any extension of the distribution of his awards.

The Committee approved the following course changes:

New Courses:

None.

New Course Descriptions:

Music 203 - History of Music, Choral and Instrumental Techniques (2-6;2-6)
Required of students in the first year of the Bachelor of Music program and open only to those students. The same content as Music 200 with the addition of a laboratory in the principles and practice of woodwind instruments.

Music 300 - History of Music and Instrumental Technique (2-6;2-6)
A study of the history of music from the year 1600 to 1900. Scores and records of music are provided. A critical evaluation of the styles of various composers is emphasized. The laboratory consists of the study of brass and woodwind instruments as applied to band and orchestral groups.
Pre-requisite: Music 200 or equivalent
Textbook: Boyden, An Introduction to Music.

Music 303 - History of Music and Instrumental Technique (2-6;2-6)
Required of students in the second year of the Bachelor of Music program, and open only to those students. The same content as Music 300 except that the instrumental laboratory is limited to stringed instruments.
Pre-requisite: Music 203
Textbook: Boyden, An Introduction to Music.

Music 350 - Harmony and Counterpoint (2-3;2-3)
Strict counterpoint in three parts. Free counterpoint in three parts. Invertible counterpoint, canon and fugal exposition. Chromatic harmony in four parts. Elementary composition.
Pre-requisite: Music 250 or equivalent
Textbook: Dyson, Musicianship for Students, Book 2.

Music 353 - Harmony, Counterpoint and Orchestration (2-4;2-4)
Required of students in the second year of the Bachelor of Music program and open only to those students. The same content as Music 350 with the addition of a laboratory in orchestration.
Pre-requisite: Music 253 Textbook: Dyson, Musicianship for Stddents

Music 400 - History of Music and Instrumental Technique (2-5;2-5)

A study of the history of music with special emphasis on the Middle Ages, Renaissance and the Twentieth Century. A weekly seminar is provided at which assigned topics are discussed. The laboratory consists of the study of stringed instruments as applied to orchestral groups.

Pre-requisite: Music 300 or equivalent.

Textbooks: Catalyne, An Outline of the History of Music
Parrish and Ohl, Masterpieces of Music before 1750.

Music 403 - History of Music and Instrumental Techniques (2-5;2-5)

Required of students in the third year of the Bachelor of Music program and open only to those students. The same content as Music 400 except that the instrumental laboratory is limited to brass instruments.

Pre-requisite: Music 303 or equivalent

Textbooks: Parrish and Ohl, Masterpieces of Music before 1750.

Music 450 - Harmony and Counterpoint (2-3;2-3)

A sequent course to Music 350. Introduction to five-part harmony and counterpoint. Writing for various instruments; setting of words; keyboard harmony; harmonic analysis; transposition and score reading; knowledge of musical works; analytical techniques; composition.

Pre-requisite: Music 350

Additional text: Soderlund, Direct Approach to Counterpoint.

Music 453 - Harmony, Counterpoint and Orchestration (2-4;2-4)

Required of students in the third year of the Bachelor of Music program and open only to those students. The same content as Music 450 with the addition of a laboratory in orchestration.

Pre-requisite: Music 353

Additional text: Soderlund, Direct Approach to Counterpoint.

Courses Discontinued:

Music 251 - Form and Analysis (1-0;1-0)

Music 301 - Instrumental Technique (0-3;0-3)

Music 351 - Harmonic Analysis (1-0;1-0)

Music 401 - Instrumental Technique (0-3;0-3)

Music 451 - Analytical Technique (1-0;1-0)

Other Changes:

Music 410 - Delete "An advanced course.." and substitute "A course..."

Music 250 - Change hours from (2-2;2-2) to (2-3;2-3)

Delete all asterisks in course descriptions.

(f) Department of Physics:

In discussing the proposals of the Department of Physics, the Committee requested Professor Newbound, Assistant Dean and Professor of

Physics, to assist in explaining a number of points. Professor Newbound explained that the reason for changing the number of Physics 674 to 574 was that the Department intended to offer the course at a somewhat lower level. He also defended the title of Physics 400 - The Development of Physics, which was questioned by one member of the committee, by explaining that the course dealt with the historical development of the science, with substantial work in Physics involved. He also consulted with the Department concerning the hours for Physics 662, which had been approved by Council recently as (3-0;3-0) and were now proposed as (2-0;2-0); the Department agreed that the approved hours should stand. The Committee then approved the following proposals by the Department of Physics:

New Courses:

Physics 405 - Theoretical Meteorology (3L-0;3L-0)
A study of the physics of the atmosphere, including thermodynamics, stability, equations of motion, friction and turbulence, mechanics and structure of cyclones and anticyclones.
Pre-requisite: Mathematics 201, Physics 240
(This is a repetition of the description of Geography 405.)

Physics 574 - Radiation Physics (3-0;3-0)
X-rays and radioactivity, with emphasis on their biological effects and medical uses. Production, properties and uses of radioactive isotopes.
Pre-requisites: Physics 470 or approval of Department.

Physics 601 - Seminars in Advanced Topics (0-1s;0-1s)
Weekly research seminars are held in Theoretical Physics, Nuclear Physics and Low Temperature Physics.

New Course Descriptions:

Physics 570 - Relativity and Quantum Mechanics (3-0;3-0)
Special theory of relativity. Introduction to quantum mechanics with application to atomic and modern physics.
Pre-requisite or co-requisite: Physics 480.

Other Changes:

Physics 400 - Change hours from (3-0;3-0) to (3-3;3-3)

Physics 571 - Change pre-requisite to "Physics 470 and 440 or equivalent."

Courses Discontinued:

Physics 320 - Electricity and Magnetism (2-0;1-3)

Physics 674 - Radiation Physics (2-0;2-0)

(g) Department of Psychology:

New Courses:

Psychology 466 - Sensation and Perception (3-0;3-0)
A basic course covering the psychophysics of threshold and comparative sensory perceptual organization; relation to learning, set and motivation, (including curiosity and novelty).

Psychology 585 - Seminar in Theories of Perception (3-0;3-0)
A theoretical coverage of major issues: classical theories, field theory, sensory-tonic, adaptation level, frame of reference, probabalistic and transactional functionalism, directive state, event-structure, cybernetics and the system viewpoint.

Psychology 589 - Research in Psychopathology (3-3;3-3)

Courses Discontinued:

Psychology 220 - Psychology Applied to Business and Industry (3-0;3-0)

Other Changes:

Psychology 364 - Change title to "Conditioning and Learning"
Psychology 430 - Change pre-requisite to read "Psychology 202 and Statistics 205."

Psychology 534 - In pre-requisite, delete "Psychology 344"

Psychology 538 - In pre-requisite, delete "Psychology 107 or"

Psychology 588 - Change title to "Advanced Abnormal Psychology."

The proposals of the Department of Psychology were discussed and approved.

(h) Department of Sociology:

A number of questions arose with regard to the proposed new courses offered by the Department of Sociology. It appeared to the Committee that several new courses closely approached other disciplines, particularly Psychology and Classics (with regard to Archaeology). As there were also some minor points as to hours descriptions, designation of seminars, etc., it was agreed that the Dean would discuss the whole submission with the Department of Sociology and that the Committee would consider the matter again at the December meeting.

(i) Department of Zoology:

Some discussion arose with regard to minor points of wording and numbering, and Dr. Wonders was requested to discuss these points with the Department. Some minor modifications, resulting from his discussion with the Department, are included in the following, which were approved by the Committee:

New Courses:

Zoology 465 - Boreal Ecology (0-0;3-3)
A study of the animals of the cold temperate, subarctic and arctic regions and in the adaptations that enable them to survive in those regions.
Pre-requisite: Zoology 462.

Zoology 471 - Animal Behaviour (3-0;0-0)
Behaviour as an adaptive phenomenon. The genetic, anatomical, neurological and hormonal bases of behaviour. The structure of animal societies. The systematic, ecologic and evolutionary significance of behaviour.
Pre-requisite or co-requisite: Zoology 440, or consent of Instructor.

Zoology 571 - Animal Behaviour (0-0;3-0)
Advanced problems and recent research in animal behaviour with particular emphasis on the social behaviour of vertebrates.
Pre-requisite: Zoology 471, or consent of Instructor.

New Course Descriptions:

Zoology 462 - General Ecology (0-0;3-3)
The principles governing the relationship of animals to their environments and to one another.
Pre-requisite: Two courses in Zoology.

Zoology 520 - Seminar in Zoology (1-0;1-0)
Reports by members of the staff, graduate students and invited speakers, on research in progress or on recent advances in Zoology.
Required of all fourth year Honors and Graduate students.

Courses Discontinued:

Zoology 470 - Animal Behaviour (3-0;3-0)

Other Changes:

Zoology 452 - In pre-requisite, add Zoology 462.

Zoology 464 - Change hours from (3-3;0-0) to (0-0;3-3).

Zoology 555 - Change pre-requisite to "Zoology 462 or consent of Instructor."

(j) Department of Political Economy:

The Committee noted the stipulation "Open only to graduate students in Economics" which was included in the description of several courses; it was considered that this was unduly restrictive, as these courses might well be sought by some Honors students and also by graduates other than those in Economics.

It was agreed that the insertion of appropriate pre-requisites would accomplish the selective restriction desired. In considering the proposed course in Economics of Underdeveloped Countries, offered at the "500" level, The Committee was in favour of making this subject available to a larger number of students; Dr. Hanson agreed to add an additional course at a somewhat lower level, and this is included in the following, which were approved by the Committee:

New Courses:

Economics 410 - Economics of Underdeveloped Countries (3-0;3-0)
A survey of the economic conditions and problems of the underdeveloped countries of the world.
Pre-requisite: Economics 200

Economics 506 - Mathematical Economics (3-0;3-0)
A survey of mathematical models in economics. An analysis of linear and non-linear programming, game and decision theory, and Leontief systems.
Pre-requisite: Economics 300 and 380; Statistics 255; Mathematics 200 or 201.

Economics 510 - Economics of Underdeveloped Countries (3-0;3-0)
An analysis of economic policy in the low-income continents. Measurement of economic magnitudes, development of resources, roles of government and foreign aid.
Open to honors and graduate students.

Economics 580 - National Income and Economic Growth (3-0;3-0)
An intensive study of the concepts and techniques used in analyzing national income relationships and aggregate economic growth.
Open only to graduate students.

Economics 600 - Advanced Micro-Economic Analysis (3-0;3-0)

Economics 604 - Advanced Econometrics and Mathematical Economics (3-0;3-0)

Economics 680 - Advanced Macro-Economic Analysis (3-0;3-0)

New Course Descriptions:

Economics 500 - Price and Distribution Theory (3-0;3-0)
An intensive study of the concepts and techniques used in analyzing the pricing of products and factors of production.
Open only to graduate students.

Economics 504 - Econometrics (3-0;3-0)
A study of the statistical concepts of probability, distributions, movements, and statistical inference as applied to economic problems. Estimation techniques and time series analysis of economic data.
Pre-requisite: Economics 300 and 380; Statistics 255; Mathematics 200 or 201.

Courses Discontinued:

Economics 601 - Advanced Economic Theory (3-0;3-0)

Economics 681 - Business Cycle Analysis (3-0;3-0)

(k) Department of Geography:

The proposal that one new course submitted by the Department of Geography carry credit as either a B or C Division course gave rise to some discussion of the whole question of Divisions, and in particular the several courses, not exclusively Geography, that overlap the divisions. It was the opinion of the Committee that this problem has implications which should be studied by Council. In the meantime, the course under discussion was designated as C. Division. It was also noted that there was a growing number of courses to which the pre-requisite was "consent of instructor." The Committee generally recognized that this pre-requisite is a perfectly valid one in many cases, but felt that there was a danger of too arbitrary an application, particularly in cases where the instructor was inexperienced or less than fully informed as to the ability or requirements of individual students. It was thought by one member at least that this question, too, might well be studied by Council. The Department of Geography agreed to modify the stated pre-requisites in several courses, and the following were approved by the Committee:

New Courses:

Geography 407 - Advanced Physiography (2L-1s;2L-1s)

The study of physiographic processes in both natural and artificial (man-affected) settings. Content will range from reading on physiographic problems to field mapping and research in the local area.

Pre-requisite: Geography 201 or consent of the Instructor.

Note: This is a C Division course (To be offered in Calgary.)

Geography 418 - Geography of Water Resources (3L-0;3L-0)

A study of local, regional and world patterns of water supply and demand. Precipitation, evapotranspiration, streamflow, soil moisture, ground water and the management of watershed regions. Domestic, municipal, industrial, irrigation, hydro-power, navigational, fishing, recreational and other demands and the problems of supply modification and allocation.

Pre-requisite: Geography 201 or the consent of the Instructor.

Note: This course carries credit as a C Division option.

Geography 420 - Political Geography (3-0;3-0)

A study of the state area as a geographical phenomenon and as a causal factor in the nature and distribution of other features of geographical significance.

Pre-requisite: A previous course in Geography or consent of the Instructor.

Geography 422 - Southwest Pacific (2-1s; 2-1s)

The geography of Australia, New Zealand and the islands of Oceania. Where appropriate special attention will be paid to the geographic implications of the social and economic problems of widely scattered dependent and underveloped territories and of the traditionally agricultural lands.

Pre-requisite: A previous course in Geography or consent of the Instructor

Geography 424 - Resource Conservation (2-1s;2-1s)

Principles of conservation and their application at the international, national and local levels. Student problems will be assigned.

Pre-requisite: A previous course in Geography or consent of the Instructor.

Geography 510 - Historical Geography (1-2s;1-2s)

Studies of the regional or topical geography of selected areas at given times in the past. The areas considered may vary from year to year.

Pre-requisite: A previous Geography course or consent of the Instructor.

Geography 552 - Research in Human Geography

Geography 553 - Special Problems

New Course Descriptions:

Geography 301 - Cartography (6L;6L)

Aspects of surveying, including field work with the plane table; the major projections, their construction and application to cartographic purposes; the representation of statistical data on graphs, diagrams and maps; photogrammetric methods and the identification and interpretation of landscape features from aerial photographs; the fundamentals of drafting, lettering, map layout and reproduction.

Note: This is a C Division course.

Geography 401 - Advanced Physical Geography (3L-0;3L-0)

A study of climate, vegetation, soil, water and landforms with stress upon local, regional and world patterns of each.

Pre-requisite: Geography 201 or consent of the Instructor.

Note: This is a C Division Course.

Although there was still some course material to consider, the Committee took note of the time - 12.40 p. m. - and decided that the remaining material could be considered at a subsequent meeting.

Douglas E Smith

Chairman

Secretary

The seventeenth meeting of the Executive Committee of the Faculty of Arts and Science was held Saturday, December 16th, 1961, at 10.30 a. m. in the office of the Dean.

Present were Dean Smith, Chairman; Professors Elder, Wyman, Wonders and Harris (the latter as alternate for Professor Hanson).

1. Minutes of Previous Meeting:

As the minutes of the previous meeting were not ready for circulation, the Committee agreed to waive the reading of the minutes.

2. Business Arising from the Minutes:

Despite the absence of formal minutes, it was recalled that a query had arisen at the last meeting as to the powers of the Committee in dealing with petitions. An examination of the Terms of Reference indicated that it was the Committee's duty to consider petitions and make an appropriate recommendation to Council. The practice had been, however, for the Committee to notify a decision to the petitioner. While this would not preclude Council reversing the Committee's ruling, it was an inconsistent procedure, and contributed little to the purpose for which the Committee was formed. The Dean will ask Council to amend the Terms of Reference to permit the Committee to deal with petitions, rather than make recommendations concerning them.

3. Calendar Changes:

Department of Biochemistry:

With some minor revisions to clarify prerequisites, which subsequently were assented to by the Department of Biochemistry in discussions with Dr. Harris, the following were approved:

New Course

Biochemistry 521 - Nucleic Acids (0-0;3-0)
A consideration of the nucleic acids from the points of view of chemistry, structure and function. Specific topics will include the following: classes of nucleic acids and their distribution in cells; basic composition of nucleic acids and the structural chemistry of their constituents; isolation and physico-chemical characterization of the nucleic acids; pathways of bio-synthesis

of the nucleic acids; biological functions of the nucleic acids with emphasis on the role of the ribonucleic acids in protein biosynthesis.

Prerequisite: Biochemistry 300, 350 or 411. It is recommended that Biochemistry 531 (Chemistry of Proteins) be taken prior to or concurrently with this course.

Biochemistry 300 - General Course (3-3;3-3)

Introduction to the chemistry and metabolism of biologically important compounds. Dynamic aspects of biochemistry will be discussed with examples from the animal, plant and microbial worlds.

Prerequisites: Chemistry 230 and either 250 or 350

Biochemistry 400 - Clinical Biochemistry (2-3;2-3)

Principles and instrumentation; quality control; clinical chemistry of blood and urine; gastric, kidney and liver function tests; disturbances of acid-base, electrolyte, and mineral metabolism; inborn errors of metabolism. The emphasis throughout the course is upon critical appraisal of biochemical methods as applied to the study of disease.

Prerequisite: Biochemistry 300.

Courses Discontinued

Biochemistry 350 - Plant Biochemistry (3-3;3-3)

Biochemistry 541 - Biochemistry of Lipids (3-0;0-0) or (0-0;3-0)

Department of Botany:

The proposals submitted by the Department of Botany included the renumbering of Botany 201, 300 and 310 offered in Calgary as Botany 271, 370 and 371; Calgary's offerings are similar to, but not identical with those presented in Edmonton. Members of the Committee thought there was some danger in this, particularly in that students who had taken these courses later came to Edmonton to complete their programs; the senior courses they took at that time were based on the prerequisites as offered in Edmonton. Certain departments here have resisted any important divergence, particularly in regard to junior or basic courses. The Dean explained that other departments had recognized very substantial differences and this was not inconsistent with General Faculty Council's established policy of permitting Calgary to proceed to autonomy. He further outlined the progress already made by Calgary in this direction, and indicated that autonomy in Calgary was being approached perhaps more quickly than was generally realized. Members felt that if this were so, the difference in course numbers would be of less consequence than would be the case if they would have to look forward to several years of accomodating to different junior courses being offered by Calgary students. The following proposals by the Department of Botany were approved:

New Courses

Botany 360 - Palaeobotany (3-3;3-3)
Systematic study of fossil plants.
Prerequisite: Botany 310; Geology 201.

Botany 420 - Seminar in Botany (1-0;1-0)
Participation required of all senior and graduate students.

New Course Description

Botany 508 - Plant Ecology (3-0;0-0)

Plant communities in relation to their environment. Throughout the course, studies in conservation and forestry will be considered.

Prerequisites: Botany 300; Botany 320; or consent of instructor.
(This course will replace the present Botany 503).

Other Changes

In Calgary only:

Botany 201 - Renumber as Botany 271.

Botany 300 - Renumber as Botany 370.

Botany 310 - Renumber as Botany 371.

Department of Chemistry:

The following new courses in Chemistry were approved:

Chemistry 615 - Advanced Analytical Chemistry (3-0;0-0)

Chemistry 617 - Analytical Spectroscopy (0-0;3-0)

Department of English:

With the assurance of the Department of English that the seminar courses, English 501, 502 and 503 would be "marked"courses, and that, appropriately weighted, they would be reflected in students' averages, the Committee approved the following:

New Courses

English 501 - Seminar, second year Honors English (1s-0;1s-0)

English 502 - Seminar, third year Honors English (1s-0;1s-0)

English 503 - Seminar, Fourth year Honors English (1s-0;1s-0)

English 504 - Honors Tutorial (Description on next page -)

English 504 - Honors Tutorial
In the spring of his third year the honors English student, in consultation with the department, will arrange for a literary project to be pursued under the guidance of a member of the department for the ensuing summer and winter. This project will involve study of some problem having to do with such matters as technique, genre, criticism or theme. The course will be conducted as a tutorial.

Department of History:

The Department of History has proposed a comprehensive realignment of the department's offerings. The junior courses will remain the same as those offered currently, but courses in the 300 range have been revised with the intention of confining this range to periods and considerations which they view as fundamental. The courses listed in the 400 range are considerably more specialized and deal with particular areas or periods. It is the intention that the 300 range courses will be regarded as normal senior courses, with the 400 range courses open only to Honors or Graduate students, or to third year pattern students with at least two previous courses in History. This has involved a substantial number of course revisions, with certain specialized courses previously designated 300 being moved to the 400 block, and a number of new 400 courses being created.

The "comprehensive" requirements, in the 500 range, have been assigned course numbers, which has occasioned the creation of a number of new 500 range courses.

The course offerings in Calgary are generally consonant with this proposal.

After a brief discussion, the Committee approved the following:

New Courses

History 400	- The Rise of the Universities and their Impact on European Society, 1150 - 1500	(3-0;3-0)
History 404	- A Selected Topic from the Period of the Renaissance or the Reformation	(3-0;3-0)
History 407	- The Era of Napoleon	(3-0;0-0) or (0-0;3-0)
History 420	- A Selected Topic from the History of France	(3-0;0-0) or (0-0;3-0)

History 422 - The Social Thought of Nineteenth Century Europe	(3-0;0-0) or (0-0;3-0)
History 423 - The Politics of Weimar Germany	(3-0;0-0) or (0-0;3-0)
History 424 - The History of the Communist Party in Russia	(3-0;0-0) or (0-0;3-0)
History 451 - English Medieval History	(3-0;3-0)
History 452 - Tudor and Stuart England	(3-0;3-0)
History 453 - Britain Since 1714	(3-0;3-0)
History 460 - The United States in the 19th Century	(3-0;3-0)
History 470 - The History of the Canadian West to 1870	(0-0;3-0) or (3-0;0-0)
History 471 - The History of the Canadian West Since 1870	(3-0;0-0) or (0-0;3-0)
History 472 - The History of Canada to 1791 Prerequisite: A reading knowledge of French.	(0-0;3-0) or (3-0;0-0)
History 474 - Problems of Canadian Confederation 1867-1900	(3-0;0-0) or (0-0;3-0)
History 480 - East Asia	(3-0;0-0) or (0-0;3-0)
History 511 - British Medieval History (Comprehensive)	(3-0;3-0)
History 512 - British Modern History (Comprehensive)	(3-0;3-0)
History 513 - Canadian History (Comprehensive)	(3-0;3-0)
History 514 - American History (Comprehensive)	(3-0;3-0)
History 515 - Medieval European History (Comprehensive)	(3-0;3-0)
History 516 - European History, 1500 - 1789 (Comprehensive)	(3-0;3-0)
History 517 - European History, 1789 - 1939 (Comprehensive)	(3-0;3-0)
History 650 - Research Seminar in European History (Required of all graduate students)	(3-0;0-0) or (0-0;3-0)
History 660 - Research Seminar in North American History (Required of all graduate students)	(0-0;3-0) or (3-0;0-0)

Courses Discontinued

History 300 - Medieval Europe	(3-0;3-0)
History 380 - The Far East	(3-0;3-0)
History 504 - The Age of Louis XIV	(3-0;3-0)
History 506 - The Age of the Enlightenment	(3-0;3-0)
History 510 - Europe 1815 - 1870	(3-0;3-0)

History 514 - The West Slavic People Since 1800 (3-0;3-0)

History 516 - Russia Since 1816 (3-0;3-0)

History 518 - Slavonic and Soviet Studies; an Interdepartmental Seminar (3-0;3-0)

History 520 - Medieval Britain (3-0;3-0)

History 521 - Europe Since 1870 (3-0;3-0)

History 522 - England Under the Tudors and Stuarts (3-0;3-0)

History 524 - Britain in the 19th Century (3-0;3-0)

History 526 - The British Empire and the Commonwealth Since 1815 (3-0;3-0)

History 530 - Canada During the French Regima (3-0;3-0)

History 532 - Canada 1763-1867 (3-0;3-0)

History 534 - The Canadian West (3-0;3-0)

History 540 - The Westward Expansion of the United States (3-0;3-0)

History 541 - Problems in the History of the United States (3-0;3-0)

History 560 - The Far East (3-0;3-0)

Other Changes

History 210 - Omit description

History 302 - Period changed from 1095-1648 to 1050-1453.

History 306 - Change from "...Congress of Vienna" to "...downfall of Napoleon".

History 326 - Renumber as History 428

History 340 - Renumber as History 405

History 382 - Renumber as History 482

History 390 - Renumber as History 490

History 500 and History 501 - Add to description: "Special subjects are offered by most members of the Department. The following are a few examples of possible special subjects."

Replace list of special subjects with the following:

1. Chaucer's England.
2. France in the Age of Louis XIV.
3. Elizabethan England and its Aftermath.
4. Russia Since 1861.
5. Southern Africa in the 18th Century.
6. Society in New France.

History 502 - Renumber as History 515.

History 508 - Change hours to (0-0;3-0) or (3-0;0-0) and renumber as History 406.

In Calgary:

History 380 - Latin-America (3-0;3-0)
History of Mexico, Central and South America from the End of the Colonial Period.

History 404 - A selected topic from the period of the Renaissance or the Reformation (3-0;3-0)

History 405 - Social and Economic History of Europe (3-0;3-0)

History 420 - A selected topic from the History of France (3-0/3-0)

History 421 - A selected topic from the History of Germany (3-0;3-0)

History 452 - Tudor and Stuart England (3-0;3-0)

History 454 - 19th Century Britain (3-0;3-0)

History 462 - Intellectual History of the United States (3-0;3-0)

History 464 - History of American Foreign Policy (3-0;3-0)

History 470 - History of the Canadian West (3-0;3-0)

History 473 - A selected topic of Canadian History (3-0;3-0)

History 525 - European Diplomatic History after 1870, with special emphasis on the origin of World War I (3-0;3-0)

Department of Microbiology:

After Dr. Wonders obtained the assurance of the Department of Microbiology that they had consulted with the Departments of Botany and Zoology, who agreed with this offering, the Committee approved the following:

New Course

Microbiology 403 - Microbial Taxonomy (3-0;0-0) or (0-0;3-0)
A study of the history, Principles and methods of microbial classification and nomenclature.
Prerequisite: Microbiology 360 or Botany 360 or Botany 330 or 340, or consent of the instructor.

Department of Philosophy:

One of the new courses proposed by the Department of Philosophy is Philosophy 562 - Philosophy of Mathematics. Dr. Wyman, who is familiar with the suggested texts and readings, considered some of the matter to be very profound, and wondered if the course as described might not be beyond the level of preparation of the students who might be interested in taking it. It was decided that approval of this course should be deferred until it had been discussed between Dr. Mardiros and Dr. Wyman; the Dean undertook to arrange this duscussion. The following proposals by the Department of Philosophy were approved:

New Courses

Philosophy 576 - Existentialism (3-0;3-0)

New Course Description

Philosophy 260 - Introduction to Logic, Semantics and Scientific Method (3-0;3-0)

This course introduces the student to the theory and practice of interpretation and definition, precise argumentation, objective judgment and rational decision making, with a brief elementary introduction to symbolic logic. Its general purpose is to show how to distinguish between sound and unsound beliefs and thus to serve as an introduction to philosophic method.

Other Changes

Philosophy 340 - Add prerequisite Philosophy 240.

Philosophy 344 - Change prerequisite to read "A previous course in Philosophy or consent of instructor".

Philosophy 348 - Add prerequisite Philosophy 240.

Philosophy 360 - Change prerequisite to read "Philosophy 260 or consent of Instructor".

Philosophy 462 - Change prerequisite to read "Philosophy 260 or consent of Instructor".

Department of Physics:

One of the new courses to be offered in Calgary, Physics 445,-Radio Physics, appeared to the Committee as being a very weighty course, and one in which the mathematics required might be more extensive than implied by the listed prerequisites. Dr. Wyman discussed this point with Professors Grayson-Smith and Buckmaster, and was assured that the course would be offered at a level appropriate to the mathematical prerequisites. Accordingly, the Committee approved the following courses and other calendar changes, applicable to Calgary only:

New Courses

Physics 445 - Radio Physics (3-3;3-3)

The application of electromagnetic theory, solid state theory and system analysis to electronic devices. Transmission lines, waveguides and antennas as examples of boundary value problems in electromagnetic theory; electrical and magnetic properties of semiconductors; Matrix, topological and signal-fluro-graph methods of circuit and system analysis.

Prerequisite: Physics 340 or 380; Mathematics 304 or 306.
Corequisite: Mathematics 404 or consent of instructor.

Physics 573 - Topics in Nuclear Physics (2-0;2-0)

Interactions of radiation with matter, nuclear reactions, nuclear properties, nuclear models. Elementary particles.

Other Changes

Physics 400 - Change hours to (3-3;3-3)

Astronomy 478 - Change hours to (3-3;3-3)

Physics 590 - Renumber as 631.

Physics 592 - Renumber as 633.

Department of Psychology:

One of the new courses approved by the December meeting of Council, Psychology 466 - Sensation and Perception - (3-0;3-0), the Department of Psychology has now decided should be a half course; this also applies to several of their old courses. The following were approved:

New Course Descriptions

Psychology 336 - Individual Differences (3-0;0-0) or (0-0;3-0)

A survey of the biological and social conditions contributing to variations among individuals. Methods for describing individuality.

Prerequisite: Psychology 202, or, with consent of instructor, Psychology 212.

Psychology 341 - Social Psychology (3-0;0-0) or (0-0;3-0)

An introduction to the study of individual and group behaviour observed in social processes.

Prerequisite: Psychology 202 or Sociology 202.

Psychology 364 - Conditioning and Learning (3-0;0-0) or (0-0;3-0)

A study of acquisition, retention and utilization of learned behaviour.

Prerequisite: Psychology 202, or with consent of instructor, Psychology 212.

Psychology 466 - Sensation and Perception (3-0;0-0) or (0-0;3-0)

A basic course covering the psychophysics of threshold and comparative sensory perceptual organization, and relation to learning, set and motivation, (including curiosity and novelty).

Other Changes

Psychology 460 - Add to prerequisites "In Calgary, Psychology 202 and Statistics 255 or permission of instructor."

Department of Sociology:

A number of observations had been made by the Committee at its last meeting concerning the proposals of the Department of Sociology, and a new submission was presented by that Department, reflecting the various points raised by the Committee. However, on consulting Dr. Reinhold, Director of the Summer School of Linguistics, it was found that he was unaware of the Department's intention to reduce Anthropology 305 to a half course. As this course is intended primarily for use in the Summer School of Linguistics, approval of this change will be deferred pending further consultation. Among minor points that were noted and corrected, it was pointed out that if it was the intention of the Department of Sociology to couple Sociology 341 with a variety of other half courses, with 341 providing the basis for study of more specialized areas, Sociology 341 should be given in the first half of the year only, and designated (3-0;0-0). The following were approved:

New Courses

Anthropology 360 - Peoples and Cultures of Latin America (3-0;3-0)
A study of the basic sources of modern Latin American society and culture; the aboriginal Indian traditions and those brought from the Iberian peninsula. Emphasis will be placed on the institutional and value systems of modern Latin America.

Anthropology 370 - Peoples and Cultures of Asia (3-0;3-0)
A study of the major culture groupings in Asia; origins, modern forms and functioning, trends of change. Special attention will be given to the Chinese, Indian and Southeast Asian areas.

Anthropology 395 - Prehistoric Archaeology (3-1;3-1)
Archaeology as the anthropological approach to reconstruction and study of extinct, non-literate societies; archaeological techniques, methods and modes of interpretation; comparative analysis of the major prehistoric developments of the world.

Anthropology 410 - Theory of Culture and Culture Change (3-0;3-0)
Study of past and current thought concerning the nature of culture and culture change, with attention to such concepts as cultural evolution, diffusion, invention, acculturation, patterns and themes. Relation of theory to problems of planned culture change in underdeveloped areas of the contemporary world.
Prerequisite: Anthropology 202, Sociology 202 or consent of instructor.

Sociology 341 - Social Psychology (3-0;0-0)
An introduction to the study of individual and group behaviour observed in social processes.

Sociology 343 - Collective Behaviour (0-0;3-0)
Analysis of various forms of collective behaviour, including crowds, mobs, panics, audiences, fashions, fads, cults, etc.
Prerequisite: Sociology 340 or 341

Sociology 344 - Mass Communication (0-0;3-0)
The analysis of socio-psychological effects of mass media of communication, radio, television, movies, comic books, etc.
Prerequisite: Sociology 340 or 341.

Sociology 345 - Social Movements (0-0;3-0)
The social psychology of involvements in voluntary associations; study of the genesis, development, effect and decline of various social, religious, political movements.
Prerequisite: Sociology 340 or 341.

Sociology 346 - Public Opinion (0-0;3-0)
A study of the nature of public opinion, factors involved in the formation of public opinion, and the roles of advertising, propaganda and education techniques in modern society.
Prerequisite: Sociology 340 or 341.

Sociology 356 - Sociology of Rural Life (0-0;3-0) or (3-0;0-0)
A study of the rural community and rural social systems, with special reference to changes in the rural way of life.

Sociology 376 - Sociology of Religion (3-0;3-0)
Sociological analysis of the institution of religion and religious behaviour in preliterate and modern society.

Sociology 402 - Principles of Sociology (3-0;3-0)
A course in basic principles of sociology for students with advanced standing. Not given for credit to those with Sociology 202 credit.
Prerequisite: Senior or graduate standing.

Sociology 410 - Sociological Analysis (3-2;3-2)
Study of techniques used in sociological analysis; application of analytical techniques to social data, critical evaluation of presently used techniques and examination and development of alternative approaches.
Prerequisite: Sociology 310 or consent of instructor.

Sociology 430 - History of Sociological Thought (3-0;3-0)
The historical roots of sociology, beginnings of modern sociology, and development of sociological theory to present times.
Prerequisite: First course in Sociology.

Sociology 452 - Population (3-2;0-0)
A study of population and its composition, with special reference to trends in Canada. Class,occupational, and rural-urban differences with respect to population changes. The problem of human migration.
Prerequisite: Sociology 202

Sociology 453 - Human Ecology (0-0;3-0)
A study of ecological processes and institutional patterns related to the distribution of human population.
Prerequisite: Sociology 202.

Sociology 510 - Research Seminar (3s-2;3s-2)

Sociology 520 - Seminar in Social and Personal Disorganization (3s-0;3s-0)

Sociology 526 - Seminar in Criminological Theory (3s-0;3s-0)

Sociology 527 - Seminar in Correctional Theory (3s-0;3s-0)

Sociology 550 - Seminar in the Human Community (3s-0;3s-0)

Sociology 555 - Seminar in Demography (3s-0;0-0)

Sociology 560 - Seminar in Social Organization (3s-0;0-0)

Sociology 562 - Seminar in Social Class (0-0;3s-0)

Sociology 570 - Seminar in the Family (0-0;3s-0)

New Course Description

Sociology 450 - The Human Community (3-0;3-0)
A study of human communities; their institutional structure, ecological factors associated with patterns of growth, community relations, community planning.
Prerequisite: A first course in Sociology.

Sociology 530 - Seminar in Sociological Theory (3s-0;3s-0)

Sociology 590 - Seminar in Industrial Sociology (3s-0;0-0)
(Formerly Sociology 520 - (3-0;3-0))

Courses Discontinued

Sociology 340 - Social Psychology (3-0;3-0)

Sociology 350 - Population and Ecology (3-0;3-0)

Other Changes

At the request of the Department of Sociology, and considered by the Committee to be preferable to the original proposal of offering a course Sociology 414 identical to Education 414, the following course will be placed in the Arts and Science Calendar and accepted as an Arts and Science course, in similar fashion to Education 476 and Education 492:

Education 414 - Sociology of the School (3-0;3-0)
Study of the school as a social institution in the changing society.

Department of Zoology:

A course proposed by the Department of Zoology in Calgary, - Zoology 315 - Elementary Genetics, was considered to have implications of interest to other departments. However Dr. Persson, Department of Genetics, has no objection to this course being offered by the Department of Zoology in Calgary, so it was given approval. Commencing this session, a new half course was introduced, - Zoology 411 - Embryology; this was the first half of Zoology 410, which could not be given in its entirety due to the non-arrival of certain experimental apparatus. The Department has decided it is preferable to give the subject matter of Zoology 410 in two half courses, Zoology 411 - Embryology, and Zoology 412 - Experimental Embryology. The Committee approved the following:

New'Courses

Zoology 411 - Embryology (3-3;0-0)
The sequence of normal development is presented and the underlying mechanisms are analysed.
Prerequisite: Zoology 300 or consent of instructor.

Zoology 412 - Experimental Embryology (0-0;3-3)
The classical and modern experiments which have made embryology an experimental subject are presented and some of them are tested.
Prerequisite: Zoology 411 or consent of instructor.

Zoology 581 - Histology and Microtechnique (3-3;0-0)
Principles of fixation and staining; theory of the microscope; preparation of slides; study of tissues; micrometry; photomicrography.
Prerequisite: Zoology 300 and Zoology 350.

Zoology 582 - Advanced Histology (0-0;3-3)
A seminar and project course for students intending to employ histological methods extensively in graduate research.
Prerequisites: Zoology 581, or instructor's permission.

Biology 451 - History and Philosophy of Biology (3-0;3-0)
An account of selected periods of biological discovery in relation to historical and cultural developments; an examination of the important ideas which have arisen from, or which have influenced biology. Intended especially for Honors students in biological subjects, but open to other students with necessary prerequisites.
Prerequisite: Botany 201, Zoology 220 or Biology 341.

Courses Discontinued

Zoology 410 - Embryology (3-3;3-3)
Zoology 580 - Histology and Microtechnique (3-3;3-3)

Other Changes

Zoology 350 - Delete from description, "...and the evolution of organ systems".

In Calgary only:

New Course:

Zoology 315 - Elementary Genetics (3-0;0-0) or (0-0;3-0)

A course designed primarily for biologists, dealing with Mendelian inheritance, linkage, sex determination, mutation, the structure and function of the gene, population genetics, developmental genetics, cytoplasmic inheritance, and relating topics.

Prerequisite: Zoology 220.

Other Changes

Zoology 362 - Change time from "(3-3;0-0)" to "(3-3;0-0) or (0-0;3-3)" Change prerequisite to read, "Zoology 300, 350. Note: Zoology 300 may be taken as a corequisite with the instructors permission."

Zoology 421 - Change prerequisite to read, "Zoology 300, 350. Note: Zoology 300 may be taken as a corequisite with the instructor's permission."

The meeting adjourned at 1 p. m.

Douglas E. Smith

Chairman

Secretary

The nineteenth meeting of the Executive Committee of the Faculty of Arts and Science was held Saturday, February 16th, 1962, at 10 a. m., in the office of the Dean.

Present were: Dean Smith, Chairman; Professors Elder, Wonders, Wyman and Harris, the latter as alternate for Professor Hanson.

1. Minutes of Previous Meeting:

Minutes of the eighteenth meeting were adopted as circulated.

2. Business Arising from the Minutes:

Chemistry 455 and 655:

These courses, dealing with Chemistry of Biological systems, are proposed by three departments in Calgary, and were referred to the Executive Committee by Arts and Science Council, as they had not been fully discussed between interested departments before presentation to Council. At the last Executive Committee meeting, the only representations received were those from Botany, and these did not favor offering the course(s); accordingly the matter had been deferred.

Since the last meeting letters have been received from Zoology and Biochemistry. In both, qualified support was given to the course, but considerable misgivings were evident. In the case of Zoology, the basis of support was quite frankly one of not wishing to oppose its Calgary protagonists, rather than approval of either the course or the novel way in which it was to be offered. In the considered opinion of the Committee, the course ranged over so large a field that no one subject could receive anything but the most cursory of treatment, and that there was danger of the course becoming merely a series of popular lectures, or even, as one member expressed it, "a selection of trivial treatments". There was also the question of matching the course with another half course; this could only be done by developing another course of a comparable nature.

Having firmly agreed that the course could not be approved, the question of procedure was considered. It was agreed that the Dean, who plans to visit Calgary shortly, would see those staff members who proposed the course and endeavour to persuade them to the Committee's view. Failing this, the Committee would recommend adversely, and have Council debate the matter.

3. Calendar Changes:

The Department of Genetics has requested the inclusion in Arts and Science Calendar of the following courses:

Genetics 481 - Population Genetics (3-0;0-0)
Gene behaviour in populations; influence of mutation, migration, genetic drift and selection. Genetics of natural selection and evolution.
Prerequisite: Genetics 352 or equivalent.
Textbook: Balconer, Introduction to Quantitative Genetics.

Genetics 541 - Chemical Gene Concept in Microorganisms (3-0;0-0)
The genetic control of protein synthesis, nucleocytoplasmic relationships and the problem of protein synthesis, the chemical nature of genic material and the molecular meaning of genetic recombination.
Prerequsite: Genetics 351 or 352 and a course in biochemistry.

Genetics 552 - Radiation Genetics and Chemical Mutagenesis (0-0;3-0)
Ionizing and non-ionizing radiations; biological effects of radiation upon chromosomes and mitosis; the mechanism of mutation induction by radiation; chemical mutagenesis, target theory, radiometic chemicals, protectors.
Prerequisite: Genetics 351 or 352.

Genetics 563 - Genetics of Parasitic Systems (3-0;0-0)
Genetic aspects of parasitism, including Flor's hypothesis of gene-for-gene relationships and methods used in analyzing complex parasitic systems.
Prerequisite: Genetics 351 or 352.

Although it is too late to have these courses included in the 1962-63 Calendar, Genetics wishes them approved in order that Honors students, and possibly others, may take them. A question was asked as to the effect upon the Department of Zoology, and the Dean pointed out that liaison between Zoology, Botany and Genetics is very close. Nevertheless, it was considered that the courses should be formally cleared with the affected departments, and subject to this the courses were approved.

4. Nominations for Committees:

There is a considerable number of half-courses, and the indications are that this number will increase in the future. Already there have been requests for recognition, as the equivalent of a full course, of two half courses of something less than complete affinity; it appears inevitable that these requests will become more frequent as more half courses are offered. To date the Dean has been adamant in refusing to allow credit for incongruent half courses, but departments are inclined to be somewhat less exacting in their requirements. Indeed, it may well be that very useful combinations of half courses from different disciplines exist or can be developed, as witness the combination of Botany 321 and Zoology 321. It was agreed that the matter merits study; and the following ad hoc committee was proposed:

Chairman: Professor Brodie; Members: Professors Farrell, Reinhold, Royce and Trainor.

The Committee will be required to study the whole question of combining half courses, and to propose regulations, with precise terms of reference to be formulated by the Dean.

(Subsequently, it was found that Professor Brodie preferred not to act as chairman, and that Professor Royce was unable to act on the Committee. Accordingly, Professor Reinhold was proposed as Chairman, and Professor Hirabayashi as replacement for Professor Royce.

The report of the Committee to Faculty Council therefore showed the following:

Chairman: Professor Reinhold; Members: Professors Brodie, Farrell, Hirabayashi and Trainor.)

The Dean then raised the question of another Committee, to consider the operation of the Revisions Committee, particularly in the light of the recently approved recommendations of the Committee on Promotion Regulations. A past chairman had made several recommendations with a view to reducing the possibility of inconsistent application of standards by successive Revisions Committees, and these had not been dealt with immediately as it was felt that the report of the Committee on Promotion Regulations would have considerable bearing on this question. In discussing the matter, the Committee noted that the new regulation, requiring a 60% average, should have the effect of limiting the Revisions Committee's considerations to the question of pass marks; however, the Committee on Promotion Regulations having intended 60.0 as the required average, a single mark could have great significance to the individual student. A member suggested that perhaps it was too early to convene a committee to consider the problems that might confront the Revisions Committee, and that it might be preferable to wait until one cycle under the new regulations had been completed and then see what problems had arisen. It was agreed that the letter referred to above would be given to the Chairman of the Revisions Committee, together with any other data that might be useful to the Committee; the Chairman might then ask for guidance if it appeared to be necessary.

In connection with the regulation requiring a 60% average, it was agreed that a distribution of marks attained in final examinations would be of interest. This will be calculated in May.

5. Special Cases:

Mr. Gary Dean is registered in a program which includes ten junior courses. In July, 1961, he requested permission to take, as his third year options, three junior science courses required for admission to the Faculty of Medicine, as he thought at that time he would probably be entering Medicine after completing his B. A. (Psychology). With some reluctance, this program was approved. Later, he requested permission to make a change in registration, and at that time the excessive number of junior courses was noted. He claimed that this program had been properly approved, but at the time the Tentative Course Selection form could not be located, and the basis of registration could not be checked. In any case, although he maintained that he had been properly registered under the authority of an approved form, he accepted the fact that his registration was not according to pattern and that he would have to complete an additional senior course in Summer Session in order to graduate. He was planning to enter Medicine or Graduate Studies, so it did not appear too important to him. However, since that time the Registrar has located Mr. Dean's Tentative Course Selection form, which establishes clearly that his registration in the peculiar program was indeed approved, and he wishes to accept employment after graduation. Accordingly, he has petitioned that he be granted his degree, notwithstanding the divergence from the general regulations. The Committee, noting that a competent officer of the Faculty had approved his registration, agreed to grant his petition, assuming his performance in other respects is satisfactory.

Mr. Peter William Gilderson registered first in 1957-58, claiming advanced standing in a number of science courses completed at Brighton Technical College, England. Some considerable difficulty was experienced in arriving at his advanced credits, but Mr. Gilderson was able to demonstrate considerable competence in examinations which he undertook, and he was granted credit in Mathematics 201, Physics 240 and three Chemistry courses, and registered in the B. Sc. Chemistry program. Since that time, by registering each year as a partial student and taking additional work in Summer Session, he is within one course of the requirements for graduation. However, he has not met the stipulation regarding an intra-mural year. The Committee felt that if this stipulation were to be insisted upon, Mr. Gilderson should have been warned long before he reached his present status, and that to require him to register for a complete year would have the effect of denying him the advanced credits which he had been granted. Accordingly, it was agreed that Mr. Gilderson will be permitted to graduate without attending the University for one year as a full-time student, provided he meets all other requirements.

Sister Mary Stella Maris, who has a B. A. and B. Ed. from Marianapolis College, an affiliate of University of Montreal, wishes to take courses leading to a B. Sc. Council approved a recommendation from the Patterns Committee that a third Bachelor's degree could only be obtained by taking the full fifteen course program. However, Sister Mary Stella Maris, when she enquired, was given a statement of requirements which indicates she need only take nine courses, as she was in effect given advanced credit for six courses which she had taken in her previous studies. A curious anomaly exists in that, were either of her degrees not recognized, she could proceed to the B. Sc. by taking nine courses, but if recognition is accorded to both her degrees, she will require fifteen courses. The Committee noted that Sister Mary Stella Maris had been given a statement of requirements which she was entitled to consider as authentic, although it had been marked "subject to confirmation," and agreed that, as a special case, she would be permitted to qualify for the degree of B. Sc., upon completion of the nine courses set out in the statement of requirements.

6. Other Business:

The Dean gave notice that the Committee will be asked to consider various questions relating to restrictions applied to Summer Session registrations, both as to individual course loads and as to limiting total registration in certain courses. At present, the general rule is that two courses only are allowed, but a number of laboratory courses (though not all) can not be taken concurrently with any other course. Council has expressed itself as being opposed to allowing more than one course, regardless of level or content, to be taken in Summer Session. Correspondence between the Dean and the Director, Summer Session, will be circulated to the members.

It was observed that a recommendation of the Committee, to the effect that a study be made of courses that overlap the Divisions, had been tabled by Council. It was agreed that the matter would be placed on the Agenda at an early meeting of Council.

The meeting adjourned at 12.35 p. m.

Douglas E Smith

Chairman

Secretary

The eighteenth meeting of the Executive Committee of the Faculty of Arts and Science was held Saturday, January 20, 1962, at 10 a.m. in the office of the Dean.

Present were: Dean Smith, Chairman; Professors Elder, Wonders, Wyman and Moore (the latter as alternate for Professor Hanson).

1. Minutes of Previous Meeting:

Minutes of the sixteenth and seventeenth meetings were adopted as circulated.

2. Nominations:

(1) Committee on Honors:

Staff changes have resulted in members representing various departments on the Committee on Honors without formal appointment. The following were nominated: Professors Ball (Entomology), Grayson-Smith (Physics), James (Sociology), Kreisel (English), Myers (Microbiology), Pearce (Physiology), Ross (Zoology), Wyman (Mathematics).

(ii) Committee on Patterns: ✓

The terms of several members of the Patterns Committee have expired. In considering appointments, the function of the Patterns Committee was discussed in the light of the impending implementation of the recommendations of the Committee on the Curriculum of the General Course. It was thought that a committee would have to consider the various new programs which would supersede the patterns, and that some of this work might involve the Patterns Committee, or some of its members. It was felt that, even without this possibility, there would be work for the Patterns Committee, at least until the final disappearance of patterns, which will take place in 1965. Accordingly, the following were nominated (to replace Professors Thomas, Elder and Cormack, whose terms have expired): Professors McNeal, Mackie and Motut; in the event that Professor McNeal's other responsibilities prevent his accepting this nomination, Professor Goundry will replace him. The other members of the Committee are

Professors Eaton, James and Wyman; Professor Wyman was selected as Chairman.

(iii) Ad hoc Committee to consider limiting dates for qualifying degrees, under the patterns system and also programs which existed prior to the patterns. The following were nominated: Professors Newbound (Chairman), Blackley, Dunford, Greene and Whyte.

3. Petitions:

Richard Alexander Blais enrolled in 1960-61 as a special student, with five advanced credits from St. John's College, all junior courses from Divisions A and B. He wished to complete the requirements for admission to Medicine, which, considering the Chemistry requirements, meant two years, He dropped one course and passed four, all junior courses, including one second, and was permitted to register as a regular student in the General Science pattern in 1961-62. His 1961-62 registration is in two senior Chemistry courses and three additional junior courses. If he passes all courses this year, and is permitted to count towards a degree all courses taken as a special student, he will have a total of twelve junior courses and two senior Chemistry courses. His petition is to count the courses taken as a special student toward the degree of B.Sc. (General Science). The Committee noted the remarkable number of junior courses, the fact that his credits, even including those taken as a special student, do not conform to the General Science pattern, and that, as far as we are aware, Mr. Blais may still aspire to Medicine, for which his eligibility would depend, among other things, on his performance this year. It was also noted that he cannot graduate this year in any case. It was decided to await the results of this year's work, and then decide not only the question of granting credit for courses taken as a special student, but also how best to apply all his courses.

James Stewart Edwards first enrolled in 1954-55, and became Category IV. He persuaded the authorities to readmit him in 1955-56, and performed creditably in the first year of B.A. LL.B. In 1956-57 he was permitted to register in six courses, of which he failed two. In 1957-58 he registered in five courses and failed four, with marks of 4, 5, 14 and 41; he was assigned to Category IV for the second time. In 1959 he sought readmission, and was declined. In 1960 he again sought readmission, and supported his request with elaborate pleas on his behalf from persons of some weight who had employed him. As a great concession, he was permitted to register as a special student in two courses, in order that he might provide some evidence to support his representations of a completely new attitude. In these courses he secured one second and a pass on a re-read paper. He then asked for permission to take a course at Summer Session, 1961, and achieved a high mark in Physical Science 341. On this basis he was admitted in 1961-62 as a regular student. He now petitions for credit in the three courses he took as a special student.

The Committee noted the remarkably inconsistent performance of Mr. Edwards, the fact that he had twice been assigned to Category IV and the noteworthy concessions that had already been extended to him. They considered that his being permitted to take courses as a special student was solely as an apportunity for him to furnish evidence to support his plea for readmission, and that in this he has beenamply rewarded. They unanimously opposed any further concessions, and in particular the awarding of credit for the courses taken as a special student. Further, it was agreed that Mr. Edwards would be required to complete a full year's work this year if he hopes to qualify for a degree. In view of the unusual circumstances in this case, it was considered Council should be asked to specifically endorse the Committee's ruling.

Harry Maximchuk transferred to Honors Physics from Engineering, where he had completed one year with an average of 80.1%; he was given credit for a full year's work towards his Honors program. He took English 210 in his second year, no A or B Division course in his third and is currently registered

In Russian 210. His Honorsregistration form has a notation that he has only two A or B Division courses and that the acceptability of his program was subject to the approval of the Committee on Honors. This Committee did not meet until December 20, 1962, and at that time ruled that Mr. Maximchuk would be required to present one further A or B course. Mr. Maximchuk was so advised, and responded by pointing out that (a) he received this advice far too late to change his registration, and (b) he had been assured by the Physics Department that his credit for a full first year would imply an A or B course and that his program was adequate.

The Committee, while sympathetic to Mr. Maximchuk's position, was not prepared to make a ruling opposed to that of the Committee on Honors; it was decided to refer the matter to Council, at which most members of the Committee on Honors would be in attendance.

4. Calendar Material:

The only calendar material for consideration by the Committee was a course proposed by several departments in Calgary, Chemistry 455 and 655 - The Chemistry of Biological Systems. It is proposed to offer this course, at both the undergraduate and graduate levels, in a novel manner, employing six instructors, from different departments, and covering a very wide range of topics relating to ciological chemistry. The course had been presented to Faculty Council, where it appeared that full consultation between interested departments had not taken place; according Council had referred the matter to the Executive Committee with instructions to ensure that all interested departments were consulted and, if appropriate, to present the course to General Faculty Council for approval.

The only representations received by the Dean's office concerning the courses were those from the Department of Botany; in these serious questions were raised as to both desirability and feasibility of the courses as proposed. At least two members of the Committee agreed with this point of view, and accordingly it was decided to defer further consideration until a later meeting.

5. Other Business:

(i) Degree Program in Recreation:

This program, to be offered by the School of Physical Education, has been approved; it will be a four-year course, including at least thirteen Arts and Science courses, leading to a degree in Recreation. The School of Physical Education prefers not to entitle the degree "Bachelor of Recreation" and wishes it to be either a B.A. or B.Sc. The Dean is expected by General Faculty Council to make a recommendation as to which it shall be, and wished the advice of the Committee, as General Faculty Council would meet before Arts and Science Faculty Council could consider the matter. The Dean outlined the considerations which had led to the offering of the program, pointed out that the degree would be conferred, and that the only unresolved question was the actual title. After considerable discussion, the Committee agreed that neither B.A.nor B.Sc. was entirely suitable. It was felt that in Recreation there is no essential core discipline, and that the purpose of the course was to train individuals to fit them for employment in one specific job, which was certainly not the province of this Faculty. The Dean agreed to convey this to General Faculty Council.

(ii) First Term Half-Courses:

A policy question has arisen as to when marks of half-courses taken in the first term should be announced, and when supplemental examinations in these courses should be written. When marks were released immediately after the examinations, supplementals were written in April. In the past, there have been cases of students failing the half-courses when they were prerequisite to half-courses taken in the second half; special authority is needed for them to take the second half, though such instances are rare. The Committee was apposed to releasing marks of such courses until marks for all courses were announced, feeling that not only would an earlier announcement encourage appeals and requests for supplementals at other than the usal time, but would afford students taking these courses an unfair advantage over thos taking half-courses offered in the second term.

The meeting adjourned at 1 p.m.

Douglas E. Smith

Chairman

The twentieth meeting of the Executive Committee of the Faculty of Arts and Science was held Saturday, April 21st, 1962, at 10 a.m., in the office of the Dean.

Present were: Dean Smith, Chairman; Professors Elder, Wonders, Wyman and Moore, the latter as alternate for Professor Hanson.

1. Minutes of Previous Meeting:

The minutes of the nineteenth meeting were adopted as circulated.

2. Nominations:

At its meeting of April 2nd, 1962, the Faculty Council had approved the establishment of a Committee to consider various aspects of the separation of the Faculty into separate faculties of Arts and Science.

Dean Smith was proposed as Chairman, but was reluctant to accept the appointment though willing to serve on the Committee. It was agreed that both Dean Smith and Dean Armstrong should be members of the Committee and it was further agreed that it should make little difference whether the Chairman of the Committee represented the remaining Faculty of Arts or the new Faculty of Science. Considerable care was exercised in selecting members in order to give a balanced representation to Arts, Science, and the Departments which would have interests in both faculties (Mathematics, Geography, Psychology). The slate finally decided upon is as follows: Chairman - Professor Wyman; Members - Dean Smith, Dean Armstrong; Professors Farrell, Folinsbee, Gainer, Greene, Ross and Royce.

3. Restrictions of a Summer Session Registration

The Dean reviewed the problem on restrictions to be applied to Summer Session Registrations, the background material for which had been circulated to members. Aside from course quotas, the general regulations as they exist now provide for registration in not more than two courses, and with the second course being regarded as a privilege; the total class load cannot exceed 25 hours except in some cases by approval of the Dean. An additional restriction may be imposed by a Department deciding that a course that it offers cannot be taken concurrently with any other course. Some departments have availed themselves of this opportunity to restrict registration while others have not. An anomalous situation has arisen in that, for example, Physics 240, cannot be taken concurrently with another course but Chemistry 230, an equally demanding course, can. The question proposed by the Dean is essentially "Do we want uniformity and if so, how is it to be attained?". Some consideration was given to proposing that Arts and Science Council request the General Faculty Council again for a regulation restricting Summer Session registrations to a single course. It was generally agreed that there would be some merit in applying this to all laboratory courses. The Dean would prefer that his office, rather than the departments, select the courses which could not be taken concurrently with others. He felt such an arrangement would be within the authority of the Faculty whereas General Faculty Council had considered and rejected more general restrictions. After further discussions it was decided that, after the results obtained by students taking more than one course had been made available, at the conclusion of this Summer Session, the matter should again be referred to Arts and Science Council. This agreement was subject to the proviso that it might become necessary to consider the matter again in this Committee.

4. Special Cases

(a) John E. Welykholowa received a B.Ed. degree in October 1959 and was advised of the requirements for a B.A., these being six senior courses selected so as to conform to the pattern (Drama). One of these requirements is for a language and it was agreed that a junior language could be accepted. He has completed four senior courses, but still requires a Biological Science. Biology 341 or Genetics 351 are the only senior Biological Science courses which are permitted without a prerequisite, but neither of these courses has been offered in Evening Credit or Summer Session since Mr. Welykholowa commenced his

B.A. program. He petitions that he be considered to have fulfilled the requirements for a B.A. after a B.Ed. by offering the four senior courses already taken plus Zoology 220 and Russian 100 (to meet the language requirement). The Executive Committee noting tha junior courses may be included in the B.A. after B.Ed. program only if the total number of junior courses taken in both programs does not exceed seven, declined the petition as Mr. Welykholowa already has that number of junior courses.

(b) Mr. S.E. Millman failed to graduate with a B.A. in 1957-58, having failed two courses; he completed one of these in 1957-58 and the second by a Supplemental in 1959-60, but still lacked two seconds to graduate. He achieved a second in Sociology 320 in 1960-61 and is at present registered in Sociology 326. The substance of his petition is that he be permitted to graduate, providing he achieves a second-class standing, in Sociology 326; he wishes to take post-graduate work in the University of British Columbia, School of Social Work and his acceptance is contingent upon his successful completion of a B.A. degree. The Executive Committee, noting that Mr. Millman's record was no better than several students whose degree had been withheld because of lack of second-class standings, declined the petition.

(c) Mr. D.L. Petherbridge received a Bachelor of Education degree in October 1951 and later embarked on a M.A. program. He has completed the course requirements but does not expect to be able to complete his thesis within the time limit. He petitions for a B.A. degree on the basis of his completed courses. The Department of Modern Languages are prepared to accept a substantial number of courses in French, surplus to the requirements of the B.A. degree in Modern Languages, as fulfilling the requirements for a second language. The Executive Committee are prepared to concur in the recommendation of the Department of Modern Languages, that Mr. Petherbridge be regarded as having fulfilled the language requirements for a B.A. degree. However, they were not prepared to accept his courses as fulfilling the normal pattern requirement, which includes three C division courses. The petition, accordingly, was declined.

5. Calendar Changes

The Committee agreed to the request of the Department of Psychology that Psychology 460 be offered as a half course, with hours (3-3;0-0).

6. Professor Wonders, a regular member of the Committee, will be on sabbatical leave throughout the 1962-63 session. The Secretary was instructed to search the terms of reference of the Committee, which would indicate the mechanics of selecting a replacement. If the terms of reference provide for the alternates to serve, an additional alternate should be nominated; if they require that a regular member of the Committee be appointed for the balance of Professor Wonder's term, Art's Council should be asked to select this member.

7. It was agreed that the next meeting of the Executive Committee should be on the third Saturday of September, providing that there is no occasion for them to meet before then. It was also agreed that the departments should be made aware of the requirement to submit to the Executive Committee for approval, any final course changes required for the 1962-63 session.

The meeting adjourned at 12:20.

Douglas E. Smith

Chairman

Secretary.

The twenty-first meeting of the Executive Committee of the Faculty of Arts and Science was held August 8th, 1962, at 2 p. m. in the office of the Dean.

Present were: Dean Smith, Chairman; Dean Armstrong, Dean Scargill, Professors Buck, Elder, Ross and Wyman.

1. Minutes of Previous Meeting:

The minutes of the twentieth meeting were adopted as circulated.

2. Organization of a Faculty Council in Calgary:

The Chairman presented a resume of the Faculty situation in Calgary. Dr. M. H. Scargill was appointed Dean of Arts and Science in Calgary, with effect July 1st, 1962; according to the University Act, when a Dean is appointed, a Faculty Council should be organized. There is, however, a requirement that notice of motion be given at the next preceeding meeting of General Faculty Council before that body may consider the organization of new Faculties, Departments, etc. This means that the General Faculty Council recommendation that a Faculty Council be organized in Calgary cannot be presented to the Board of Governors before their December meeting, at the earliest. There are a number of questions regarding curricula in Calgary that it is imperative be resolved before registration in September. The Chairman asked Dean Scargill to speak on the proposals that had been considered in Calgary.

Dean Scargill advanced two proposals:

(a) the calling of emergency meetings of both General Faculty Council and of Arts and Science Council, in August, in order to prepare a recommendation for consideration by the Board of Governors at its meeting in October;

(b) the establishment in Calgary of a Standing Committee of the Faculty of Arts and Science Council, to conduct Calgary business and report to the Arts and Science Council, until such time as a Faculty Council in Calgary can be regularly established.

Of these two alternatives, Dean Scargill preferred the first.

In the discussion that followed, it was evident the Committee felt there would be considerable difficulty in convening the emergency meetings required by the second alternative, and also some danger in dealing hastily with matters of such import. It being agreed that the creation of a Standing Committee was the proper action, the Committee carefully considered terms of reference for the Standing Committee, and also its composition.

The Committee approved the establishment, at the University of Alberta in Calgary, of a Standing Committee of the Faculty of Arts&Science Council, for the purpose of:

(1) Considering, and reporting thereon to Faculty Council[x], the formation, composition and responsibilities of a Council of the Faculty of Arts and Science at the University of Alberta in Calgary;

x - See minu
of Sept 20, 19

(2) Considering, and recommending thereon to Faculty[x] Council, changes in courses and curricula to be offered in the Faculty of Arts and Science at the University of Alberta in Calgary;

(3) Considering, and recommending thereon to the Faculty[x] Council, the calendar, regulations and administrative practices which will apply in the Faculty of Arts and Science at the University of Alberta.

The membership of the standing committee will be:

Chairman: Dean Scargill

Secretary: Professor Guy

Members:

Professor Challice, Physics
Professor Churchley, Fine Arts
Professor Hartland-Rowe, Zoology
Professor Heinz, Philosophy
Professor Heymann, History
Professor Hine, Chemistry
Professor McGee, English
Professor Inlow, Political Economy
Professor J.G.Nelson, Geography
Professor S.J.Nelson, Geology
Professor Oyler, Modern Language
Professor Peck, Mathematics
Professor Prince, Botany
Professor Schonfield, Psychology
Professor Zentner, Sociology
Professor A. Winspear, Classics

3. New Mathematics and Sociology Courses - Faculty of Agriculture:

The Dean of Agriculture has requested a modification in the junior Mathematics course presented to Agriculture students, and a new course in Rural Sociology.

Professor Wyman explained the purpose of Mathematics 200, which is to bring students without high school trigonometry to Mathematics 201 level in one year. The Department of Mathematics has found this to be difficult, and, in the case of weak students or those who have not done Mathematics for two or three years, virtually impossible. In the Faculty of Agriculture, students in Agricultural Engineering need a considerable amount of Mathematics, whereas others need very little; there are comparable situations in other Faculties. The Department of Mathematics feels that the solution to the general problem is to offer Mathematics 200 in two years, rather than to continue to try to do it in one extremely heavy year. This would enable students whose Mathematics requirement was minimum, to drop the subject after the first year. Professor Wyman believes that ultimately his Department will have to offer a series of junior Mathematics courses adapted to the differing requirements of Faculties and Departments. Dean Bentley would like to apply the two-year approach to students in Agriculture commencing this coming year.

The Committee agreed to approve in principle a course, Mathematics 180, (4-0;4-0), with the precise description to be supplied by the Department of Mathematics.

Dean Bentley's other request was that Sociology 356 be made available to first-year students in Agriculture. In view of the obvious objection to permitting first-year students to take a senior course, it was agreed that the Department of Sociology would be asked to develop a junior course in Rural Sociology suitable to students in Agriculture.

4. Calendar Changes:

The Committee approved the following courses in Plant Biochemistry and Physiology:

431. Plant Biochemistry (3-3;0-0)

This course is designed as an introduction to plant biochemistry. Topics include the Physico-chemical properties of protoplasm, the chemistry and metabolism of carbohydrates, photo-synthesis and some of the broader aspects of respiration.
Prerequisites: Chemistry 230 and Chemistry 250 or 350, or permission.

432. Plant Biochemistry (0-0;3-3)

A continuation of Plant Biochemistry 431, this course deals with the biochemistry of lipids and related plant constituents, and the chemistry and metabolism of nitrogen-containing compounds.
Prerequisite: Plant Biochemistry 431.

5. Special Cases:

Mr. William J. Beamer: Mr. Beamer, who has completed fourteen courses of the Honors program in Economics, has petitioned for a pass degree on the completion of the fifteenth course, for which he has registered in Summer Session in Calgary. He is unable to continue at University for the fourth year of the Honors program. The Committee agreed.

Richard Alexander Blais: Mr. Blais' position is fully outlined in the minutes of the meeting of January 20, 1962. It was decided at that time that after the results of his 1961-62 work were known, it would be the duty of this Committee to decide what Mr. Blais must do to qualify for a Bachelor of Science degree. The Committee agreed that Mr. Blais must take a full five-course program, all senior courses, and must include three senior C Division courses, of which one must be Mathematics, Physics or Zoology.

Larry Paul Stene: Mr. Stene, who last attended in 1960-61, has completed eleven courses, plus the field course, toward a B. Sc. degree in Geology, but has not achieved a pass in Mathematics 201, despite having attempted three final examinations and two supplementals. Because Mathematics 201 is a prerequisite to a mandatory Physics course in the third year of the Geology pattern, Mr. Stene cannot register in the courses which would complete his degree requirements, and has requested a ruling as to what he must do to get his degree. The Committee agreed that it would be impossible for Mr. Stene to qualify for a B. Sc. degree in Geology, and that with his record, he could not be transferred to any Physical Science pattern. It was decided that Dean Armstrong would examine Mr. Stene's position, decide upon the optimum use of the course credits which he has, and advise Mr. Stene accordingly.

6. Adjournment:

The meeting adjourned at 5 p. m.

Douglas E Smith
Chairman

Secretary

The twenty-second meeting of the Executive Committee of the Faculty of Arts and Science was held September 20th, 1962, at 2 p. m. in the office of the Dean.

Present were: Dean Smith, Chairman; Dean Armstrong; Professors Elder, Gainer, Lorch and Ross.

The Chairman welcomed Professors Gainer and Lorch to their first meeting of the Committee.

1. Minutes of previous meeting:

The minutes of the meeting of August 8th, 1962, were approved as circulated; it was agreed, however, that in the minutes which record the terms of reference of the Standing Committee in Calgary it should be made clear that reference to "Faculty Council" means Arts and Science Faculty Council, and not General Faculty Council.

2. Nominations:

The following nominations were considered and approved for submission to Council:

(a) To replace Professor McNeal on the Interdepartmental Committee on Slavonic and Soviet Studies: Professor M. Katz.

(b) To replace Professor Gainer as representative of the Department of Political Economy on the Honors Committee: Professor G. Davy.

(c) Council had approved the formation of a committee to consider courses which overlap the divisions (A, B and C); it was agreed to defer the nomination of members of this committee for the time being.

3. Calendar Changes:

German 200 Su. - First Year University German (10-10)
An intensive course devoted to the development of the students' fluency in speaking, reading and writing German, using modern German short stories, one-act or radio plays, cultural readers and audio-visual aids.
Prerequisite: German 30, German 100 or equivalent.
(To be offered only at the Banff School of Fine Arts.)

After a brief discussion, in which it was explained that this course would be offered on the same basis as French 200 Su. and only at Banff, the course was approved.

Mathematics 180 (4-0;4-0)

Trigonometric functions and identities. Solution of triangles. Simple algebraic curves. Differentiation and integration of elementary functions. Applications.

Prerequisite: Mathematics 30 or its equivalent.

The Department of Mathematics is preparing a new series of junior Mathematics courses designed to overcome the serious difficulty being experienced in raising to the level of Mathematics 201 those students who commence the study of university Mathematics without adequate preparation, either because of the lack of Mathematics 31 or for some other reason. Another purpose in revising the junior Mathematics courses is to provide a somewhat less rigorous course in Mathematics for students in Faculties or programs where such a course would be suitable. Although the Department of Mathematics had not intended to institute such a course this year, the Faculty of Agriculture has requested that Mathematics 180 be made available for first year Agriculture students forthwith, and the Department of Mathematics was prepared to offer the course.

It was agreed that the course would be approved retroactive to September 1, but only for first year Agriculture students; it will not appear in the Arts and Science calendar.

Sociology 256 - Elementary Rural Sociology (3-0;0-0)

An introduction to the field of Sociology with special reference to rural social institutions and social changes in rural society.

(This course is primarily for students in Agriculture, or others interested in the rural community. Not given for credit to students who have credit in Sociology 202.)

This course has been arranged by the Department of Sociology to meet a requirement in the Faculty of Agriculture. It was noted that the Department also offers another course in Rural Sociology, Sociology 356, and that the relationship of this course to Sociology 256 has not been defined. It was also noted that the hours (2-0;2-0) might prove less difficult for students than the proposed (3-0;0-0). Subject to clarification of these two points, the course was approved, retroactive to September 1, 1962.

Chemistry 595 - Photochemistry (3-0;0-0)
The fundamentals and significant recent developments in photolytic and photosensitized reactions, including primary process studies.

This course was approved, retroactive to September 1, 1962.

Chemistry 430 - Change hours from (2-3;2-3) to (3-3;3-3).

Chemistry 553 - Change hours from (0-0;3-3) to (0-0;3-0).

Zoology Pattern:

The Department of Zoology wishes to change an item in the first year prescription of the Zoology pattern from "Mathematics 200 or 201" to "Mathematics 200 or 201, or Geology 201, or Statistics 255." The Department has considered making the requirement "An option from C Division", but decided against this degree of latitude. This change has not been considered by the Patterns Committee, as the Department wanted an immediate decision in order to register students this year in terms of the new prescription.

In approving the change, the Committee noted it would require ratification in Council, at which members of the Patterns Committee would be present.

Honors Biochemistry Program:

Dean Armstrong had been asked to present for approval a revised Honors program in Biochemistry; the Department wished to register students in the revised program this fall, and the Honors Committee was not scheduled to meet until after registration. It was agreed that the new program should be submitted to the Honors Committee, and that the Dean of Science had the necessary authority to register students in the new program in anticipation of its being approved.

4. Special Cases:

Gloria K. Atamanenko:

Mrs. Atamanenko has attended three universities and acquired credit in some seventeen courses for which this University could reasonably give advanced credit; her husband's employment (as a city planner) has been in various cities. At U. B. C. last year, she obtained four seconds and two firsts in a very substantial program, but failed to qualify for her degree because of a two-year residence requirement.

The Committee confirmed Dean Smith's ruling that Mrs. Atamanenko must complete Alberta matriculation requirements and a full year at this University in order to qualify for a B. A. degree.

Maria Biamonte:

Miss Biamonte, seeking a B. A. after a B. Ed., petitioned that she be excused the requirement for a biological science on the basis that she had been informed by a former Dean of Arts and Science that, as her courses in Education included Horticulture 51, the three C Division courses required for her B. A. need not include a biological science.

The Committee agreed to grant Miss Biamonte's request, because of the undertaking made to her, but stipulated that:

(a) She must substitute a laboratory science, and

(b) That this ruling is not to be regarded as a precedent in any future requests of this nature.

James Woznow:

Mr. Woznow has petitioned for credit towards his B. A. degree for two courses taken as a Special Student.

The petition was granted.

Henri G. Michaud:

Mr. Michaud has petitioned for credit towards a B. A. degree in Art for nine courses taken as a Special (pre-Architecture) Student.

The petition was granted.

5. Exemption of Teachers from Residence Qualification:

The following is an extract from the Arts and Science calendar:

> "Students proceeding to a Bachelor's degree in the Faculty of Arts and Science will be required to attend at least one regular academic session, September to April. Exceptions may be made to this rule in the case of teachers who have had at least two years' experience subsequent to receiving their permanent certificates."

The Committee on the Evening Credit Program has requested an expression of opinion on the pertinence of the exception in favor of teachers.

Dean Smith outlined the background of the question, including reference to an unsuccessful attempt by a Director of what was then the School of Commerce to have Commerce students similarly exempted. The exception in favor of teachers was related to the shortage of teachers which has existed up till now, but with the current improvement in this situation, the Junior E program has been withdrawn, with the result that from now on teachers can only qualify through the medium of a two-year program. A case could be made for exempting other professional people that would be just as good as that for teachers. The Executive Committee was not expected to settle the question, but should consider the matter and forward a recommendation to Council.

There was general agreement that full-time attendance was certainly the best arrangement, and that one year, at the very least, was highly desirable. However, at least one member felt that regulations should not be so rigid as to preclude degrees for those obliged to work for a living. As regards the present rule, and the exception in favor of teachers, it was noted that with the elimination of the one-year Junior E program and the natural decline in the number of teachers trained in the old Normal program, the number of cases in which exceptions would be required must diminish, eventually to zero.

It was agreed that this Committee should recommend to Council that the present rule, and the exception in favor of teachers, should remain in effect; however, in view of the affect that any change in the residence rule might have on the Evening Credit Program generally, Council might well wish to recommend that General Faculty Council consider appointing a University Committee to study the question in its broader aspects or, perhaps, refer the question to the Academic Planning Committee.

The meeting adjourned at 5 p. m.

Douglas E. Smith
Chairman

Secretary

October 20, 1962

The twenty-third meeting of the Executive Committee of the Faculty of Arts and Science was held October 20th, 1962, at 10 a.m. in the office of Dean Smith.

Present were: Dean Smith, Chairman; Dean Armstrong; Professors Buck, Gainer, Lorch and Ross.

1. Minutes of Previous Meeting

The minutes of the meeting of September 20th, 1962, were approved as circulated.

2. Additions to List of Graduates

The following students have met the requirements for graduation but were not presented for approval to the October 1st meeting of Council. They did not appear on the reports of Revisions Committee for a variety of reasons, and it was necessary for the Executive Committee to consider their cases and submit them to General Faculty Council under that section of the Committee's terms of reference which require it to act for council between meeting of Council.

B.A.	B.Sc.
Peter Michael JENNER	Peter William GILDERSON
John Duncan MARSHALL	Kenneth LEE
Mrs. Nancy MARTIN (nee RENDALL)	
William Stanley SOWA	
Kenneth Gordon YOUNG	

3. Special Cases

Dr. Walter C. Meyer

Dr. Meyer applied last year to take the B.Music program after completing his D.D.S. degree but at that time there was no provision for this particular sequence; accordingly, he enrolled in English 210, a required subject, as a Special student. Dr. Meyer has successfully completed this course and also Council has set the requirements for the B.Music degree after another degree. Dr. Meyer now petitions for credit toward the B.Music degree for English 210, taken as a Special student. The petition was granted.

(Mrs.) Dorothy Eleanor MacDONALD

Mrs. MacDonald was granted the degree of B.A., Art pattern, in 1961. She now wishes to register in the Diploma in Art program. Council has always opposed granting two Bachelor's degrees in closely related fields, presumably on the basis that a student who wishes to proceed to further work in any field should undertake work leading to a Master's degree. In any case there is no formal provision for the particular sequence of programs that Mrs. MacDonald desires. Nor is there a Master's program in Art. Mrs. MacDonald has been informed that she may register in such Diploma courses as she wishes, as a Special student, until such time as a decision is made on whether students will be permitted to take the Diploma in Art program after another degree, in particular the degree of B.A. in Art.

After some considerable discussion it was agreed that the matter would be referred to the Department of Fine Arts with the request that they consider the desirability of following the B.A.(Art) with the Diploma in Art and, if appropriate, recommending the extent to which credit towards the Diploma could be given for Art courses taken in the degree program.

4. Members of the Committee prevailed upon the Chairman to permit a record being made in the minutes of their unanimous appreciation, as individuals, of Dean Smith's prompt and effective support of a colleague who had been unfairly attacked in the local press.

5. The meeting adjourned at 11:50 a.m.

Douglas E. Smith

Chairman

Secretary

The twenty-fourth meeting of the Executive Committee of the Faculty of Arts and Science was held December 15th, 1962, at 10:00 a.m. in the office of Dean Smith. The meeting recessed at 1:30 p.m., resumed its sitting at 10:00 a.m. the following day, and finally adjourned at 4:00 p.m., December 16th.

Present were Dean Smith, Chairman; Dean Armstrong; Professors Elder, Gainer, Lorch, and Ross.

1. Minutes of Previous Meeting

The word "unanimous" was inserted between the words "their" and "appreciation" in the fourth paragraph of the circulated minutes. With this change, the minutes were adopted as circulated.

2. Petitions and Special Cases

Mr. Andrew G. Harcourt, seeking a B.A. after B.Ed., registered in Classics 52 and Psychology 58 in Summer Session, 1956. He was informed by letter that this registration was "approved". Subsequently, and after he had completed and passed both courses, he was told that only one of the courses could count toward his degree, due to requirements of the pattern. He has now petitioned for credit toward his degree for both courses, stating that he was informed orally that this would be the case, and that it is his understanding that the word "approved" carries that implication. Noting that it is the practice of the Dean's office to warn students in degree programs with regard to courses that do not meet degree requirements, the Committee approved the request.

Mr. Richard P. Marceau is in his third year in the B.A. (Philosophy) program, and has petitioned for advanced credit in a senior French course on the basis of a credit for French 32 taken at the University of Ottawa. Credit was denied by the Dean's office as the transcript indicated the course is less than a full course, by our standards, and there is not sufficient information available to make a precise evaluation. Mr. Marceau states that the course is restricted to those who are both fluent in the language and well versed in the literature involved; his mark in the course is 88. The Committee decided to defer a decision until February, at which time a realistic appraisal of Mr. Marceau's competence can be made in the light of his term marks.

Mr. Dennis M. Nielsen is registered in History 308 in the Evening Credit Program; he requires a second-class standing in this course in order to graduate. He is going to Europe in December, and requests that he be permitted to write the final examination in London, notwithstanding his being absent from lectures throughout the second term. Mr. Nielsen has written three supplemental examinations for seconds since completing his required courses, and has achieved a second-class mark in one of these; he has been given permission to write an additional supplemental (in Economics 330) also to be written in London. The Committee considered that to approve his writing the final examination in History 308 after attending a fraction of the lectures would be tantamount to giving credit for a senior course taken extramurally. Noting also that his sole reason for taking the course is to obtain a second-class mark, that such a mark in the supplemental in Economics 330 would have the same effect, and that his record in courses taken regularly is far from impressive, the Committee declined the request.

Mrs. Dorothy E. MacDonald's case was discussed at the meeting of October 20th. She was awarded the B.A. degree in the Art pattern in 1961, and now wishes to enroll in the Diploma in Art program; she has taken two courses in the program, but was registered as a Special Student pending a decision as to whether she should be permitted to take both a degree and a diploma in Art. The matter was referred to the Division of Art, and a recommendation has been received that all such requests be considered on their individual merits; in Mrs. MacDonald's case, Professor Glyde recommends that she be permitted to proceed with the Diploma program.

The Committee agreed to approve the request, but with the clear understanding that this decision is not to be regarded as a precedent in dealing with similar requests that may arise in the future. It was further agreed that Professor Glyde of the Division of Painting and Professor Eaton of the Division of Music should be asked to examine the principles involved in cases such as that of Mrs. MacDonald, and to make recommendations with regard to a general policy that might be applied to such cases.

3. Nominations

Revisions Committee: To be Chairman, Professor Buck;
To replace Professor Wilson, Professor Bauer

Honors Committee: To represent the Department of Physiology,
Professor Heath.

4. Calendar Material - General Considerations

Before discussing in detail the many new courses and course changes submitted for the 1963-64 calendar, the Committee discussed at some length a number of general considerations, as follows:

Half courses

The Chairman noted that this year at least three departments appear to be adopting a half course approach to undergraduate teaching. The traditional preference at this University has been for full courses at the undergraduate level, although no opposition has been encountered in the past to the introduction of half courses. However, if a trend in this direction is developing--and the mass of calendar material awaiting consideration provides some evidence of this--some scrutiny should be given to the implications of such a trend. The ad hoc committee to consider half courses was asked to confine itself to considering regulations to govern existing half courses, and its recent report, therefore, did not examine broader issues.

Members of the Committee were agreed that the existing system, which provides for courses being offered as full courses or half courses according to their content, with some preference for full courses at the undergraduate level, is a sound one. No objection has been raised to the increasing number of half courses and we have now reached a point where a significant proportion of undergraduate material is being offered in this manner.

While recognizing that in several disciplines there are elements of a subject that can be dealt with in one term, and that there is some advantage to an arrangement where fundamentals can be covered in one term and a variety of specific applications dealt with in the next, members of the Committee were not entirely convinced that there are any essential merits to the half course system that would justify wholesale departure from the full course concept.

Members of the Committee noted also that the proportion of staff members who were trained in American institutions, where the semester system obtains, is increasing. It would not be illogical to assume the existence of some preference on the part of these members for the system under which their own training had been received. Without debating the merits or demerits of the semester system, members of the Committee were agreed that if the present trend toward half courses was related to a desire on the part of any staff members for a change in our traditional system, this change should come about by decision of Council, and not as a result of gradual erosion of the old system. It was agreed that the Committee should report to Council its reservations concerning the ever-increasing number of half courses being introduced and to suggest to Council that there may be implications in this trend that should be decided by Council as a matter of policy.

Financial Considerations

The Chairman called the Committee's attention to the substantial number of new courses being proposed, and the obvious financial implications, in the light of the recent message from the President to the effect that expansion of staff and facilities for the coming year might have to be sharply limited. Presumably, at some level, there will have to be a decision as to the extent to which proposals requiring increased staff and facilities will be implemented; presumably, the Faculty would wish to have some part in this decision.

Members of the Committee noted that it was difficult to determine from departmental submissions just what staff and facilities might be involved. In some cases, new courses represent changes rather than additions, and in the case of one department, at least, what appeared to be a massive increase in course offerings represented a complete realignment of courses with no additional staff or facilities being required. Also, there are instances of new courses being virtually compelled by circumstances. However, the fact remains that the body of available knowledge is expanding and both enrollment and unit costs are increasing; in these circumstances, an increased requirement for funds is inevitable.

Recognizing that where new course offerings will require additional expenditure, such courses may of necessity be offered only intermittently, the Committee agreed to proceed as in the past and deal with the material before it solely on academic grounds, and to recommend to Council that it do likewise.

600-level courses

The question has been raised as to the necessity for including in the Arts and Science calendar the considerable number of 600-level courses which, by definition, cannot be taken by undergraduate students. All such courses appear in the calendar of the Faculty of Graduate Studies. It was agreed that there may be a note in the Arts and Science calendar to the effect that details of graduate courses offered by each department will be found in the calendar of the Faculty of Graduate Studies and that, with this note, there was no reason to publish 600-level courses in our calendar.

Dual-numbered Courses

The Registrar has requested that, if possible, the listing of courses in more than one departmental section of the calendar be avoided. Several courses are so listed at present, with resulting administrative error and conflicts in time-tabling, scheduling of examinations, etc. The majority of such courses exist at the 600 level, and if Council approves the recommendation above, will cease to be troublesome. It was agreed that the arrangement has no especial merit that would outweigh the objections being raised, and that it would be desirable to eliminate dual numbering.

5. Calendar Changes

From time to time, during the consideration of various departmental proposals, questions were raised which required some consultation with departments. Some of these questions were resolved by the time the Committee reconvened December 16th, and others later. Such changes as resulted from these discussions have been incorporated into the descriptions and notes below.

(1) Department of Bacteriology

A. New Courses

404. Virology (3-3; 3-3)
A course in general virology including the classification and physical properties of bacterial, plant and animal viruses, and the technical methods used to study them. Various aspects of cell-virus relationships will be discussed. Consideration will be given to viral pathogenesis. Laboratory exercises will illustrate the methods for the propagation and assay of viruses including the use of embryonated eggs and tissue cultures.
Prerequisite: Microbiology 360 and Biochemistry 300, or consent of department.

503. Microbiology
A directed studies program involving specialized reading and supervised experiments, with the presentation of written and oral reports at the end of the course.

B. Course Changes

360. Microbiology: Change prerequisite to read: A university course in Chemistry, and Botany 201 or Zoology 220.

401. Immunology: Add prerequisite: Microbiology 360 (or equivalent).

(2) Department of Botany

A. New Courses

331. Phycology (3-3; 0-0)
The structure, physiology and classification of the algae with special reference to Alberta plants. Consideration is given to the evolution of these plants and their role in nature.
Prerequisites: Botany 201, or 202 or 205.

332. Lichens and Bryophytes (0-0; 3-3) or (3-3; 0-0)
Approximately half the course deals with structure, physiology and classification of the lichens, and half with structure classification and ecology of the bryophytes.
Prerequisites: Botany 201, or 202, or 205.

341. Mycology (3-3; 0-0)
A systematic survey of the fungi with detailed study of representatives of major groups. Emphasis is given to classification, life cycles and distribution.
Prerequisites: Botany 201, or 202, or 205.

342. Physiology of Fungi (0-0; 3-3) or (3-3; 0-0)
Factors affecting growth and reproduction of fungi; beneficial and harmful activities of fungi.
Prerequisites: Botany 201, or 202, or 205 and Botany 340 or consent of department.

351. Seedless Vascular Plants (3-3; 0-0) or (0-0; 3-3)
The structure, reproduction and classification of the seedless vascular plants with emphasis on their evolution and their place in the history of terrestrial vegetation.
Prerequisite: Botany 201, or 202, or 205.
Prerequisite or Corequisite: Botany 310.

352. The Gymnosperms (0-0; 3-3) or (3-3; 0-0)
The structure and evolution of the Gymnospermae; taxonomy and geographic distribution of living gymnosperms.
Prerequisite: Botany 201 or 205.
Prerequisite or Corequisite: Botany 310.

421. Plant Geography II (0-0; 3-0)
A study of plant distribution patterns and the theories advanced to explain them.
Prerequisite: Botany 321.
Prerequisite or Corequisite: Botany 300.

463. Botanical Techniques (0-0; 0-6L)
A laboratory course covering basic techniques of special value to botanists; isolation and culture of microscopic plants; elements of photography; preparation of herbarium specimens, etc.
Prerequisite: Botany 201, or 202, or 205 and one senior course in Botany.

509. Pollen and Spore Morphology (0-0; 3-3) or (3-3; 0-0)
A laboratory-conference course dealing with pollen and spore morphology; techniques of study; applications of information provided by study of these structures.
Prerequisite: Consent of department.

B. Course Changes

508. Plant Ecology: Renumber as Botany 422; no change in description.

C. Courses Cancelled

Botany 330, 340 and 350.

(3) Department of English

A. New Courses

288. An Introduction to the English Language (3-0; 3-0)
An historical and structural study of the sounds, grammar, and vocabulary of English.

373. American Literature to 1900 (3-0; 3-0)
A selection of representative major writers to 1900. Emphasis is placed upon the writers of the "American Renaissance", especially Poe, Hawthorne, Emerson, Thoreau, Melville, Whitman, Mark Twain, and Henry James.

Note: Not to be taken by students with credit in English 394.

383. American Literature from 1900 (3-0; 3-0)
A selection of representative major writers from 1900 to the present.

Note: Not to be taken by students with credit in English 394.

B. Course Changes

308. Change title, hours and description to read:

Old English Language and Literature (3-0; 3-0)
An introduction to the language and literature of Anglo-Saxon England.

388. Change description to read:

The History of the English Language (3-0; 3-0)
A detailed analysis of the historical development of the English language, together with some study of its cultural and stylistic evolution, as reflected in the prose tradition from the Old English period to the present day. Some knowledge of French and Latin (or German) is recommended.

670. Change title to read: "Currents of Thought in English Literature since 1790".

C. Courses Cancelled

English 220, 230 and 394.

(4) Department of Fine Arts

New courses and course changes in the Division of Art and in the Division of Music are both consequent upon approval by the Patterns Committee, and subsequently by Council, of program changes. The Executive Committee agreed to approve the details of new courses and course changes, contingent upon subsequent approval by Council of the new proposals.

Division of Art

A. New Courses

200. Introduction to the History of Art (3-0; 3-0)
Beginning with a discussion of fundamental concepts underlying painting and the plastic arts, this course investigates the major styles and contributions of each important period.

401. Twentieth Century Art (3-0; 3-0)
The development of painting, sculpture and architecture from the 19th century to present times.
Prerequisite: Art 200.

B. Course Changes

300. Change title and description to read:

History of European Art--3rd century - 16th century (3-0; 3-0)
A more detailed study of Early Christian, Byzantine, Medieval, and Renaissance periods of European art.

Add: "Prerequisite: Art 200".

230. Change title to read: "Fundamentals of Design".

240. Delete the word "pattern" from description of course.

250. Delete the word "pattern" from description of course.

330. Change title and description to read:

Advanced Composition I (2-3; 2-3)
Analysis of master compositions from the various schools of painting; theory and practice in arranging forms, both in the two-dimensional and in space; exercises in figure grouping; studies in non-figurative composition including an introduction to graphic design.
Prerequisite: Art 230 and Art 240, or consent of department.

340. Change title and description to read:

Advanced Drawing I (2-3; 2-3)
Portrait and life drawing; drawing from memory and visualization; some anatomical drawing; designing from the figure and the draped model in terms of two-dimensional and three-dimensional form; techniques, line, brush, wash, etc.
Prerequisite: Art 240 or consent of department.

350. Change title and description to read:

Advanced Painting I (2-3; 2-3)
Painting from the model, portrait, figure, and costume. Life size painting chiefly in oils using sustained figure poses.
Prerequisite: Art 250.

400. Change title and description to read:

European Art--1600 - 1900 (3-0; 3-0)
A study of the French, Dutch, Spanish, German, and English periods between the end of the 16th century and the end of the 19th century.
Prerequisite: Art 200.

430. Change title and description to read:

Advanced Composition II (3-3; 3-3)
Continuation of Advanced Composition I including some graphics, painting techniques and plastic design.
Prerequisite: Art 330.

440. Change title and description to read:

Advanced Drawing II (3-3; 3-3)
Continuation of Advanced Drawing I.
Prerequisite: Art 340.

450. Change title to read: "Advanced Painting II".
Change prerequisite to read: "Art 350".

474. Change title and description to read:

Advanced Drawing III (3-3; 3-3)
Continuation of Advanced Drawing II.
Prerequisite: Art 440.

Division of Music

A. New Courses

233. Hymnology (3-0; 3-0)
History of the hymn and hymn tune; types of hymns and their uses; analysis and interpretation of hymns; evaluation of standard hymnals.

260. Theory Laboratory (0-1; 0-1)
Investigation of compositional styles and techniques. This laboratory is a co-requisite of Music 250 and is required of all B. Mus. Theory major students.

333. Music in the Western Church (3-0; 3-0)
The nature of worship; music as an aid to worship; kinds of service music; orders of worship; congregational participation; responsibilities of director, organist, and choir; evaluating service music.

360. Theory Laboratory (0-1; 0-1)
A sequent course to Music 260 and a co-requisite of Music 353. Required of all B. Mus. Theory major students.

412. Medieval and Renaissance (2-3; 2-3)
Music of the early Christian church. The mass, plainsong, the development of notation. The Troubadour movement. The development of polyphony through organum, clausula and motet. A study of composers' styles and techniques from Machaut to Palestrina. Laboratory includes a weekly one-hour class in performance practices.
Prerequisite: Consent of department.

413. Medieval and Renaissance (2-5; 2-5)
Required of all students in the B. Mus. Church Music program. The same content as Music 412 with the addition of the instrumental laboratory of Music 400.
Prerequisite: Music 300.

433. Music of the Great Liturgies (3-0; 3-0)
Comparison of the Jewish, Eastern Orthodox, Catholic, Lutheran and Protestant Episcopal liturgies and their music; relation to music in the non-liturgical service; the church year.

B. Course Changes

Change in titles and descriptions of following courses:

250. Elementary Harmony and Counterpoint (2-3; 2-3)
Counterpoint up to three parts.
Diatonic harmony, including secondary sevenths. Modulation. Use of unessential notes of all kinds. Harmonizing of chorales in the style of Bach. Form; Ear training and Keyboard Harmony.

350. Harmony and Counterpoint (2-3; 2-3)
Counterpoint in three parts. Invertible counterpoint, canon and fugal exposition.
Chromatic harmony in four parts. Harmonic analysis; Ear Training and Keyboard Harmony.
Prerequisite: Music 250.

353. Harmony, Counterpoint and Orchestration (2-4; 2-4)
Open only to students in the second year of the Bachelor of Music program. The same content as Music 350 with the addition of a laboratory in orchestration.
Prerequisite: Music 250.

400. History of Music and Instrumental Technique (2-5; 2-5)
Styles and techniques of composers from Debussy to the present. The laboratory includes the study of stringed instruments as applied to orchestral groups.
Prerequisite: Music 300 or equivalent.

403. History of Music and Instrumental Technique (2-5; 2-5)
Open only to students in the third year of the Bachelor of Music program. The same content as Music 400 except that the instrumental laboratory is limited to brass instruments.
Prerequisite: Music 303 or equivalent.

450. Harmony and Counterpoint (2-3; 2-3)
Introduction to five-part harmony. Advanced chromatic harmony. The study of 16th century counterpoint up to four parts. Writing for various instruments; the setting of words. Keyboard harmony; score reading; analytical techniques; knowledge of standard musical works.
Prerequisite: Music 350.

453. Harmony, Counterpoint and Orchestration (2-4; 2-4)
Open only to students in the third year of the Bachelor of Music program. The same content as Music 450 with the addition of a laboratory in orchestration.
Prerequisite: Music 353.

460. Composition (1-0; 1-0)
A sequent course to Music 360 and a co-requisite to Music 453. Required of all B. Mus. Theory major students.

C. Courses Cancelled

Music 503, 513 and 523.

(5) Department of Genetics

Subsequent to approval by the Executive Committee, the new courses and course changes submitted by the Department of Genetics were presented to the Faculty Council of the Faculty of Agriculture. Some minor changes were made and these changes incorporated before presentation to Arts and Science Council. These changes are reflected in the notes hereunder.

A. New Courses

411. Cytology (3-3; 0-0)
Structural and biochemical organization of the cell in relation to metabolism, division, and differentiation with emphasis on nucleus and chromosomes. The application of classical and modern analytical techniques of cytology in the laboratory.
Prerequisite: Genetics 351

413. Chromosome Mechanics (3-3; 0-0)
Detailed analysis of the genetic control of meiotic and mitotic events, analysis of crossing over and its mechanisms, position effects, position pseudoalleles, and genetic behavior of chromosome aberrations.
Prerequisite: Genetics 351.

415. Cytogenetics (0-0; 3-3)
Advanced topics in cytogenetics: chromosome structure; cytogenetic behavior and evolution of chromosome aberrations; polyploidy and aneuploidy; sex determination; balanced-lethal systems; karyotype analysis; endomitosis; chromosome diminution and elimination.
Prerequisite: Genetics 351.

430. Microbial Genetics (3-0; 0-0)
Detailed analysis of genetic phenomena peculiar to microorganisms. Transduction; transformation; tetrad analysis; copy-choice mechanisms; heterokaryosis and parasexuality.
Prerequisite: Genetics 351.

517. Genetical Statistics (3-3; 0-0)
Principles and methods of biometrical analyses applied to specific genetic problems such as quantitative inheritance and linkage. Adaptation of standard designs to genetic experimentation. Emphasis throughout is on effective experimental planning and critical interpretation of genetic data.
Prerequisite: Genetics 351.

583. Evolutionary Genetics (0-0; 3-0)
Chromosomal changes, polyploidy, hybrid sterility and other factors leading to genetic isolation; meiotic drive, genetic feed-back and other microevolutionary processes; evolution of parasitism, mimicry and other systems that involve balanced polymorphism.
Prerequisite: Genetics 351.

586. Developmental Genetics (0-0; 3-0)
Detailed study of gene-controlled processes of development and differentiation; lethal factors; use of genetic markers to study cell lineage; mechanism of differential gene activation by controlling elements; cytoplasmic influences; phenocopies.
Prerequisite: Genetics 351.

590. Classic Contributions in Genetics (3-0; 0-0)
Designed to acquaint students with papers which have stimulated rapid advances in genetics by introducing a new basic concept or technique. A historical approach will begin with Mendel's papers and develop through Morgan, Bridges, Sturtevant, Muller, Stadler, Stern, Beadle and Tatum, Auerbach, Watson and Crick, Benzer, Niremberg and Matthael, and others.
Prerequisite: Genetics 351.

610. Current Problems in Genetics (0-0; 3-0)
Detailed discussion of current literature designed to acquaint the student with the active areas of modern genetic research; student participation is expected in both discussions and presentation of lectures.

635. Advanced Microbial Genetics (0-4; 0-4)
An advanced laboratory conference course dealing with genetics of fungi, bacteria and bacteriophages.

640. Advanced Genetics (0-0; 3-0)
A seminar course for detailed analysis of a specific area of current interest. The topic will be changed from year to year. The course will comprise lectures by staff members, student reports on assigned topics, and informal discussion.

650. Genetics of Parasitic Systems (3-0; 0-0)
Genetic aspects of parasitism, including Flor's hypothesis of gene-for-gene relationships, applications of the gene-for-gene concept, and methods used in analysing complex parasitic systems.

B. Course Changes

A number of changed titles and descriptions, as follows:

463. Genetic Basis of Plant Breeding (0-0; 3-0)
Emphasis is placed on principles rather than materials and methods in approaching the breeding of plants classified as to reproductive systems. Coverage includes polyploidy and aneuploidy, interspecific hybridization: induced mutation, selection responses, heterosis, and breeding for disease resistance.
Prerequisite: Genetics 351.

465. Human Genetics (0-0; 3-0)
An introductory course in human genetics covering modes of transmission of hereditary traits, pedigree analysis, interaction of heredity and environment, chromosomal anomalies, tissue culture, sex determination, physiological genetics. Application of genetics in medicolegal usage, hereditary counselling, and eugenics.
Prerequisite: Genetics 351.

481. Change prerequisite from Genetics 352 to Genetics 351.

545. Biochemical Genetics (0-0; 3-0)
The genetic control of protein synthesis, nucleocytoplasmic relationships, the molecular meaning of genetic recombination and mutation, biochemical approaches to the coding problem.
Prerequisite: Genetics 351.

552. Radiation Genetics (0-0; 3-3)
The biological effects of ionizing and non-ionizing radiation upon chromosomes and cells, mutagenesis in the broad sense, target theory, protectors, radioactive isotope studies.
Prerequisite: Genetics 351.

C. Courses Cancelled

Genetics 530 (now appears as Genetics 635) and Genetics 563.

(6) Department of Geography

A. New Courses

305. General Cartography (6L; 6L)
Similar to Geography 301. Less stress on the making of maps and more on the interpretation of maps and air photos. For students who have not chosen Geography as a major field of concentration.

407. Advanced Cartography (6L; 6L)
Further development of aspects of the subject introduced in Geography 301 with emphasis on recent developments in cartographic analysis and application of quantitative methods. Prerequisite: Geography 301 or Geography 305 or consent of department.

B. Course Changes

510. Historical Geography: Change description to read:

The development of historical geography and its relationship to geography and history; case studies of the geography of selected areas at given times in the past utilizing regional and topical approaches.

(7) Department of Geology

A. New Courses

202. Physical Geology (3-3; 0-0)
An introduction to the study of the earth; materials of the earth's crust; minerals and rocks; geologic processes and time.

203. Historical Geology (0-0; 3-3)
Geologic history with special reference to North America; stratigraphic column with index fossils from each period. Prerequisite: Geology 202 or Geography 201.

303. Crystallography (3-3; 0-0)
Crystal and chemical principles are applied to crystallography in order to explain the physical properties of minerals; an introduction to the theory and practice of X-ray powder diffraction is given.
Prerequisite: Geology 201 and Mathematics 201, or consent of department.

304. Optical Mineralogy (0-0; 3-3)
Optical crystallography; physical and optical properties of the rock-forming minerals.
Prerequisite: Geology 303

305. Principles of Paleontology (3-3;0-0)
Morphology, paleoecology, and evolution of the Porifera, Coelenterata, Brachiopoda, Mollusca, Echinoderma, and Trilobita.
Prerequisite: Geology 201 or consent of department.

306. Principles of Sedimentation and Stratigraphy (0-0; 3-3)
Sedimentary processes, environments and facies; properties and classification of sedimentary rocks; stratigraphic nomenclature and the stratigraphic column; principles of stratigraphic paleontology.
Prerequisite: Geology 201 or consent of department.

401. Igneous and Metamorphic Petrology (3-3; 0-0) or (0-0; 3-3)
The mineralogy, classification and genesis of igneous and metamorphic rocks; microscopic study of representative samples of the major rock classes.
Prerequisite: Geology 304 and 306.

402. Principles of Structural Geology (3-3; 0-0)
Theoretical structural geology; non-orogenic structures; faults; folds; elementary petrofabric analysis; problems on folding and faulting.
Prerequisite: Geology 303 and Physics 240, or consent of department.

403. Stratigraphy (I) (3-3; 0-0)
Historical geology of North America from the Precambrian to the Devonian; Cambrian to Devonian stratigraphic paleontology.
Prerequisite: Geology 305 and 306.

404. Mineralogy (3-3; 0-0)
A systematic study of minerals, their chemical and physical properties and modes of occurrence; petrographic, mineralographic, and X-ray diffraction techniques are employed in the laboratory.
Prerequisite: Geology 304 or consent of department.

405. Stratigraphy (II) (0-0; 3-3)
Historical geology of North America from the Carboniferous to the Cenozoic; Carboniferous, Permian, Mesozoic and Cenozoic stratigraphic paleontology.
Prerequisite: Geology 305 and 306.

406. Geotectonics (0-0; 3-3)
Origin and gross tectonic framework of ocean basins, continental margins and continents; causes of orogenesis; structural geology of North America; problems on folding and faulting; interpretation of geologic maps.
Prerequisite: Geology 402.

407. Paleontology (3-3; 0-0)
Morphology, paleoecology and evolution of the lesser invertebrates, vertebrates, and plants.
Prerequisite: Geology 305, Zoology 220 or Botany 201, or consent of department.

409. Geochemistry (0-0; 3-3)
A survey of chemical processes taking place in geologic settings with emphasis on the abundance relationships of the elements and nuclides in the earth's crust and the laws governing the migration and distribution of the elements of the earth.
Prerequisite: Geology 401 and Chemistry 370.

410. Micropaleontology (0-0; 3-3)
Principles of micropaleontology, techniques, systematic treatment of Foraminifera.
Prerequisite: Geology 305.

515. Advanced Micropaleontology (3s-3; 0-0) or (0-0; 3s-3)

517. Advanced Geochemistry (3-3; 0-0)

B. Course Changes

New description:

302. Geology and Mineral Deposits of Canada (3-3; 3-3)
The study of the geologic regions of Canada; their stratigraphy, structure, and mineral deposits.
Prerequisite: Geology 201 or consent of department.

460. Change prerequisite to: "Geology 402 and 404 or consent of department".

461. Add: "Prerequisite: Geology 306 and 402 or consent of department".

462. Add: "Prerequisite: Geology 201 or consent of department".

464. Delete: "Prerequisite or Corequisite: Geology 454", and add "Prerequisite: Geology 304 and 306".

465. Add: "Prerequisite: Geology 201 or consent of department".

466. New description:

Glacial Geology (0-0; 3-3)
A study of glacial features and their relation to physiographic environment; field trips.
Prerequisite: Geology 201 or consent of department.

501. Change prerequisite to: "Geology 402 and 406 or consent of department".

502. New description:

Sedimentary Petrology and Sedimentation (2-0; 2-0)
Papers on sedimentary topics will be presented at a weekly seminar. Normally the first term will be spent largely on papers dealing with mechanical sedimentation and the second term on chemical sedimentation.
Prerequisite: Geology 464.

507. Change title to "Advanced Igneous and Metamorphic Petrology". Change prerequisite to: "Geology 401 or consent of department".

508. Change prerequisite to "Geology 401, 403, and 460".

510. Change prerequisite to "Geology 401 and 404".

511. Change hours to "(0-0; 3-3)". Change prerequisite to "Geology 402 and 406 or consent of department".

610. New description:

Isotope Geology (3s-0; 0-0) or (0-0; 3s-0)
The investigation and elucidation of geologic phenomena by means of variations in the natural isotopic composition of the elements; abundance of the naturally occurring nuclides; isotopic fractionation; radioactivity; geochronology.
Prerequisite: Consent of department.

C. Courses Cancelled

Geology 351, 353, 370, 454, 455, 457, 505, and 506.

(8) Department of History

A. New Courses

426.	The Intellectual History of Russia since 1762.	(0-0; 3-0) or (3-0; 0-0)
605.	Research Seminar	(3-0; 0-0) or (0-0; 3-0)
620.	Topics in Medieval European History	(3-0; 3-0)
624.	England in the Late Middle Ages	(3-0; 3-0)
628.	The Age of the Reformation	(3-0; 3-0)
631.	European Intellectual History since 1500	(3-0; 3-0)
635.	Europe from 1715 to 1815	(3-0; 3-0)
642.	Germany since 1815	(3-0; 3-0)
648.	Russia in the Nineteenth Century	(3-0; 3-0)
651.	Tudor and Stuart England	(3-0; 3-0)
655.	Britain in the Nineteenth Century	(3-0; 3-0)
661.	Canada to 1791	(3-0; 3-0)
665.	Canada since 1841	(3-0; 3-0)
668.	Western Canada	(3-0; 3-0)
674.	The United States in the Nineteenth Century	(3-0; 3-0)
681.	Africa South of the Sahara	(3-0; 3-0)
689.	Western Diplomacy in Eastern Asia, 1850 - 1950	(3-0; 3-0)

C. Courses Cancelled

History 650 and 660.

(9) Department of Mathematics

A. New Courses

101. Trigonometry (2-0; 0-0)
Trigonometric functions and identities. Solution of triangles.
Prerequisite: 70% standing in Mathematics 30 and 70% standing in the required courses of Grade XII or special permission of the Dean.
Note: This course cannot be taken for credit towards a degree.

180. Trigonometry and Polynomial Calculus (4-0; 4-0)
Trigonometric functions and identities. Solution of triangles. Simple algebraic curves. Differentiation and integration of elementary functions. Applications.
Prerequisite: Mathematics 30 or its equivalent.

206. Calculus (5-0; 5-0)
Functions. The derivative, differential and anti-differential. The integral and its applications. Fundamental Theorem. Differentiation and integration of elementary functions of one or more variables. Simple differential equations.
Prerequisite: Mathematics 30 and 31 of High School.
Note: This course is required of first year Honors students in Mathematics and Physics. Other students admitted only with the consent of the instructor.

207. Elementary Calculus (Arts and Education) (5-0; 5-0)
Real numbers. Functions and graphs. Differentiation and applications. Analytic geometry. Integration and applications. Trigonometric, exponential and inverse functions.
Prerequisite: Mathematics 30 and 31 of High School or their equivalent.
Corequisite: Some students lacking Mathematics 31 or its equivalent may take Mathematics 207 by taking Mathematics 101 concurrently. (See the conditions under which a student may take Mathematics 101.)

220. Elementary Calculus (3-0; 3-0)
Differentiation and integration of trigonometric functions. Polar co-ordinates. Logarithmic and exponential functions. Conic sections. Areas and volumes.
Prerequisite: Mathematics 180.

264. Foundations of Mathematics (3-0; 3-0)
Axiomatics. Sets and relations. Elementary logic. Classical and modern views of geometry. The number system. Systems of numeration and scales of notation. Measurement.
Prerequisite: Mathematics 30 of High School.
Note: This course is restricted to students in the Faculty of Education. Credit may not be obtained in both Mathematics 264 and Mathematics 274.

271. Algebra and Geometry (Honors) (3-0; 3-0)
Sets. Mathematical logic. Number systems. Co-ordinates. Mathematical induction. Binomial theorem. Remainder theorem. Lines and planes in analytic geometry. Vectors. Linear transformations and matrices. Groups of transformations of co-ordinates. Geometric invariants. Determinants. Conic sections. Principal axis theorems.
Prerequisite: Mathematics 30 and 31 of High School.
Note: This course is required of first year Honors students in Mathematics and Physics. Other students admitted only with the consent of the instructor.

274. Algebra and Geometry (3-0; 3-0)
Logic and sets. Axiomatic geometry. Projective geometry. Rotation of axes. Graphs of polynomial functions. Linear equations. Vectors, matrices and determinants. Mathematical systems (scales of notation). Mathematical induction. Binomial theorem. The axiomatic approach to the number system. General algebraic systems.
Prerequisite: Mathematics 30 of High School.

308. Differential Equations (3-0; 0-0)
First-order equations. Equations with constant coefficients. Linear equations of the second order. Systems of equations. Sturm-Liouville theorem and orthogonal expansions.
Prerequisite: Mathematics 206.
Note: This course is required of second year Honors students in Mathematics and Physics. Other students admitted only with the consent of the instructor.

309. Mechanics (0-0; 3-0)
Foundations. Statics and the principle of virtual work. Plane kinematics. Plane motion of a particle and rigid body. Conservation laws. Harmonic oscillator. Motion in a central field. Planetary orbits.
Prerequisite: Mathematics 206.
Note: This course is required of second year Honors students in Mathematics. Other students admitted only with the consent of the instructor.

500. Theory of Functions of a Complex Variable (3-0; 3-0)
Complex numbers. Complex series. Functions of a complex variable. Cauchy's theorem and the calculus of residues. Integral functions. Conformal representation. The Laplace and Fourier transforms.
Prerequisite: Mathematics 404 or 405 or 406 or 407.
Note: Only one of Mathematics 500 and 501 may be taken for credit towards a degree.

501. Theory of Functions of a Complex Variable (3-0; 3-0)
The complex number system. Complex-valued functions. Convergence of series. Complex integration. Representation theorems. Calculus of residues.
Prerequisite: Mathematics 421 and 422 or consent of the instructor.
Note: Only one of Mathematics 500 and 501 may be taken for credit towards a degree.

Statistics 256. Numerical Mathematics, Statistics and Probability (3-2; 3-2)

Fixed-point and significant digit arithmetic. Round-off error differences of data and of elementary tabular functions. Use of mathematical tables. Difference and summation operators. Factorial polynomials. Fitting of equispaced data. Difference approximation to differential and integral operators. Simultaneous linear equations and method of solution. Matrices. Set theory of events. Probability measure. Finite Markov chains. Relative frequencies and probability. The binomial and Poisson distributions. The normal distribution. Elements of statistical inference.
Prerequisite: Mathematics 30 and 31 of High School.
Note: This course is required of first year Honors students in Mathematics. Other students admitted only with the consent of the instructor.

B. Course Changes

201. Change title to "Introductory Calculus".
Change prerequisite to read: "Mathematics 30 and 31 of high school or their equivalent".
Add: "Corequisite: Some students lacking Mathematics 31 or its equivalent may take Mathematics 201 by taking Mathematics 101 concurrently. (See the conditions under which a student may take Mathematics 101.)

270. New title and description, as follows:

Introduction to Algebra and Geometry (3-0; 3-0)
Structure of the number system. Mathematical induction. Binomial and multinomial theorems. Sets. Logic of simple and compound statements. Vectors and lines. Inner products. The complex plane. Vector geometry. Matrix algebra. Groups of transformations.
Prerequisite: Mathematics 30 of High School.

C. Courses Cancelled

Mathematics 200.

(10) Department of Modern Languages - Romance Division

A. New Courses

French 201. First Year University French (Education) (2-3; 2-3)
An intensive course in modern French, with emphasis on the spoken language, open only to students registered in the Faculty of Education. French-speaking students will be given a placement test to determine whether they may be admitted to this or another French course. The sequent course is French 330.
Prerequisite: Grade XII French or French 100.

Italian 360. The Italian Theatre (3-0; 3-0)
Selected plays by Machiavelli, Goldoni, Alfieri and Pirandello.
Prerequisite: Italian 300.

Spanish 570. Galdós and his Contemporaries (3-0; 3-0)

Spanish 603. El Arcipreste de Hita (3-0; 3-0)

Spanish 625. Spanish Baroque Poetry (3-0; 3-0)

B. Course Changes

French 330. In the last line of the Note, delete: "280S (French section)" and substitute "CI 263".

French 350. In the prerequisite delete "or a first-class mark in French 100".

French 360. Add "Prerequisite: French 200".

French 370. Add "Prerequisite: French 200".

French 375. Add "Prerequisite: French 200".

French 380. Add "Prerequisite: French 200".

French 399. Add "Prerequisite: One senior French course".

French 450. Add "Prerequisite: Consent of the Department".

Spanish 100. In the description, delete "Latin American culture" and substitute "Hispano-American civilization".

Spanish 300. In the description, delete "Latin American" and substitute "Hispano-American". Add "Prerequisite: Spanish 100 or the equivalent".

Spanish 320. In the description, delete "South American" and substitute "Hispano-American". Delete the last sentence (This course . . . or 370).

Spanish 360. Change in title and description:

360. Spanish Prose fiction of the Golden Age (3-0; 3-0)
La Celestina and the dialogue novel up to Lope's *Dorotea*; the novela picaresca and other contemporary narrative genres (libros de caballerías, novela morisca, novela pastoril, etc.); Cervantes' *Don Quijote* and *Novelas ejemplares*.
Prerequisite: Spanish 300.

Spanish 370. Change in title and description:

370. Spanish Poetry and Drama from the late XVth Century to 1700 (3-0; 3-0)
Their main forms and development through the Golden Age studied in a wide choice of texts.
Prerequisite: Spanish 300.

Spanish 550. New course:

550. Medieval Narrative Poetry (3-0; 3-0)
A critical reading of the main extant texts: *Cantar de Mio Cid*, Gonzalo de Berceo, *Libro de Apolonio*, *Libro de Alexandre*, *Poema de Fernán González*, etc.

Spanish 580. New Course:

580. Contemporary Spanish and Hispano-American Poetry (3-0; 3-0)

Spanish 590. New Course:

590. Modern Spanish and Hispano-American Novelists (3-0; 3-0)

Spanish 605. Change title to "Medieval Spanish Prose". Delete the description.

Italian 300. Delete "from d'Annunzio and Pirandello to Moravia and Quasimodo".

C. Courses Cancelled

Spanish 602, 665, and 670.

(11) Department of Modern Languages - Division of Germanic Languages and Linguistics

A. New Courses

Scandinavian 350. Modern Scandinavian Literature in English (3-0; 3-0)
Representative works by Ibsen, Strindberg, Lagerkvist, Kaj Munk, Kjeld Abel, Helge Krog and other dramatists, by J. P. Jacobsen, I. Dinesen, Lagerlöf, Hamsun, Undset and other novelists and poets, including contemporary authors.

Linguistics 699. Conference Course
An honors or graduate course designed to meet the needs of individual students.

B. Course Changes

German 320. Change corequisite to read: "German 200; available only in the second year".

German 400. Change prerequisite to read: "German 200 or consent of department".

(12) Department of Modern Languages - Slavonic Division

A. New Courses

Slavonic Languages and Literature 580. Seminar in Slavonic and Soviet Studies (3s-0; 3s-0)
An interdepartmental seminar.

B. Course Changes

Russian 660. Renumber as Russian 550.

Russian 670. Renumber as Russian 570.

(13) Department of Physics

A. New Courses

350. Heat and Thermodynamics (0-0; 3-0)
Properties of gases, specific and latent heats, thermodynamic equilibrium, ideal and real gases, change of phase, general state functions, entropy, laws of thermodynamics, heat transfer.
Prerequisite: Physics 244, Mathematics 206.

370. Mechanics, Properties of Matter, and Wave Motion, Optical Phenomena (3-1s-3; 3-1s-3)
Conservation laws, central force motion, Rutherford-Bohr atom, kinetic theory of gases, electrical, atomic and acoustic oscillations, linear wave motion, elasticity, fluid flow, laws of propagation of light, interference, diffraction and polarization. Laboratory will also include some experiments on heat.
Prerequisite: Physics 244, Mathematics 206.

B. Course Changes

380. New title and description, as follows:

Electromagnetism and Modern Physics (3-3; 3-3)
AC and DC circuits, electrical measurements, coupled circuits, electrical machines. Electric and magnetic fields, plane electromagnetic waves. Interaction of light and matter, spectra, electrons and X-rays.
Prerequisite: Physics 244, Mathematics 206.

471. Renumber as Physics 468.

571. Renumber as Physics 568.

672. Change hours to (3-0; 3-0).

C. Courses Cancelled

Physics 360.

(14) Department of Political Economy - Economics

A. New Courses

367. Agriculture in The Canadian Economy (3-0; 0-0)
The nature and scope of agricultural economics; size and organization of Canadian agriculture in relation to the economy as a whole; structure of the agricultural sector; technology and structural change within agriculture; economic growth, and policies for adjustment.
Prerequisite: Economics 200 or 302.

368. Agriculture in An International Setting (0-0; 3-0)
A survey of the world structure of agricultural production, consumption, and trade; international agricultural policies and agreements; impact of regional economic integration on agriculture; interrelation of economic development and trade in agricultural commodities.
Prerequisite: Economics 200 or 302.

392. The Soviet Economy I (3-0; 0-0)
The development of the Soviet economy and its institutional arrangements.

393. The Soviet Economy II (0-0; 3-0)
Problems of the Soviet economy. Marxian economics and Soviet economic policies; central planning of economic activity; Soviet economic performance and its evaluation.
Prerequisite: Economics 200 or 302, and 392.

460. Agriculture in Developing Countries (3-0; 3-0)
An analysis of the role of agriculture in the early stages of growth; problems of technical change, cultural adaptation, and integration of agriculture into a market economy; role of agrarian reform, research, extension, and credit; balance-of-payments adjustments; interaction of industrial and agricultural growth.
Prerequisite: Economics 200 or 302.

B. Course Changes

Nil

C. Courses Cancelled

Economics 360 and 391.

(15) Department of Political Economy - Political Science

A. New Courses

370. Politics of Emergent Nations (3-0; 3-0)
A study of the institutions and politics of selected nations in Asia, Africa and Latin America.

391. Parties and Pressure Groups (3-0; 3-0)
A study of the role of political parties and pressure groups in the governmental process.

393. Political Sociology (3-0; 3-0)
A study of the social basis of political institutions and practices, and of the impact of these institutions and practices on society.
Prerequisite: Political Science 200 or Sociology 202.

463. Developments in World Politics Since 1945 (3-0; 3-0)
A survey of the major developments in world politics since 1945, with special emphasis on the foreign policies of the major Powers.
Prerequisite: Political Science 360 or consent of the instructor.

593. Political Behavior (3-0; 3-0)
A study of government and politics from a sociological and psychological point of view including the study of parties and pressure groups, public opinion, voting in elections and voting in legislatures.

605. Systematic Study of Politics (3s-0; 3s-0)
An examination of the scope and methods of political science and a survey of the materials available for research.
Required of all doctoral candidates.
Note: This course will be offered by Members of the Department.

613. Seminar in Soviet Political Theory (3s-0; 3s-0)
An examination of the principal political writings of Marx, Engels, Lenin, Trotsky, Stalin and selected Soviet theorists.
Prerequisite: Political Science 310 or consent of the instructor.

641. Research in Soviet Government (3s-0; 3s-0)
Prerequisite: Political Science 340 or consent of instructor.

660. Theories of International Politics (3s-0; 3s-0)
An examination of contemporary theories in the study of international politics: realist theory; philosophies of history; systems theory; equilibrium theory; decision-making approach.

663. Problems of International Organization: Political and Security (3s-0; 3s-0)
An examination of selected problems in the political and security spheres of international organization, with special emphasis on the peaceful settlement of disputes, truce supervision and the containment of conflict.

665. Problems of International Organization: Economic and Social (3s-0; 3s-0)
An examination of selected problems in the economic and social spheres of international organization, with special emphasis on technical assistance, human rights and trusteeship questions.

B. Course Changes

340. New title and description, as follows:

Soviet Government and Politics (3-0; 3-0)
An analysis of theory and practice of the Soviet state, with special attention to Bolshevik political theory, the Communist party, political institutions, federalism, and the policy-making processes in the USSR.

381. New title and description, as follows:

Governments of Continental Europe (3-0; 3-0)
A study of the structure and functioning of selected governments of Continental Europe.

551. Renumber as Political Science 451.

561. Renumber as Political Science 461.

C. Courses Cancelled

Political Science 500, 591, and 601.

(16) Department of Psychology

A. New Courses

360. General Experimental Psychology (3-3; 0-0) or (0-0; 3-3)
A course designed for the arts concentration covering the application of experimental methods to a wide variety of psychological problems.
Prerequisite: Psychology 202 and Statistics 205. (May be co-requisite)

441. Experimental Social Psychology (3-2; 0-0) or (0-0; 3-2)
Basic research design, techniques and procedure in experimental studies in social psychology. Independent investigation in such areas as group dynamics and psycho-linguistics.
Prerequisite: Psychology 202 or Sociology 202.

468. Motivation and Emotion (3-0; 0-0) or (0-0; 3-0)
The environmental and physiological activation of animal and human behavior.
Prerequisite: Psychology 202.

474. Comparative Psychology (3-1; 0-0) or (0-0; 3-1)
Principles of animal behavior with reference to phylogenetic differences.
Prerequisite: Psychology 202.

475. Physiological Psychology (3-1; 0-0) or (0-0; 3-1)
Physiological correlates of psychological phenomena.
Prerequisite: Psychology 202.

489. Abnormal Psychology (3-0; 0-0) or (0-0; 3-0)
A general introduction to abnormal Psychology.
Prerequisite: Psychology 382 and consent of the department.

490. Psychology of Alienation (0-0; 3-0)
An examination of the psychological aspects of such conditions as loneliness, meaninglessness, existential anguish, and isolation.
Prerequisite: Any one of the following courses: Psychology 341, Sociology 341, or Psychology 489.

492. Creativity (3-0; 0-0)
An examination of the views and research concerning the creative process, including an attempt at understanding the manifestations of the creative process in different fields.
Prerequisite: Consent of the department. Open to senior students in any department. Some effort will be made to select students with diverse academic training.

550. Experimental Analysis of Personality (3-0; 0-0) or (0-0; 3-0)
Latest techniques for measurement and experimental study of such personality factors as neuroticism, anxiety, hysteria, extroversion, conflict, and motivation structure.
Prerequisite: Psychology 202.

565. Seminar in Learning Theory (3-0; 0-0)
Discussion of major theoretical and empirical issues in contemporary learning theory.
Prerequisite: Advanced standing in psychology.

570. Drugs and Behavior (3-0; 0-0) or (0-0; 3-0)
Review of the effects of stimulant, depressant, sympathetic, parasympathetic and ataractic drugs on human and animal behavior.
Prerequisite: Psychology 489, and Psychology 475 or a course in Neurophysiology.

578. Experimental Psychopathology (3-0; 0-0) or (0-0; 3-0)
A review of animal and human experimental studies of psychopathology. The course will include studies dealing with the scientific validation of psychoanalytic theory, perceptual studies of psychiatric patients, and experimental attempts to relate psychotherapy and learning theory.
Prerequisite: Psychology 489 and one course in experimental psychology, or consent of instructor.

599. Honors Thesis (3-3; 3-3)
Students in their fourth year of honors will pursue a research project under the direction of a member of the Department.

600. Research Seminar (2s-0; 2s-0)
Reports by students and staff on current research in the Department. Required each year of all graduate students in the Department of Psychology and for fourth year honors students.

649. Research (3-3; 3-3)

699. Advanced Research (3-3; 3-3)

B. Course Changes

336. Delete prerequisite.

352. Delete prerequisite, change hours to (3-0; 0-0) or (0-0; 3-0) and renumber as Psychology 353.

365. New title and description, as follows:

Experimental Psychology: Learning (0-0; 3-3)
A basic course covering acquisition, retention and utilization of learned behavior. Laboratory will illustrate methods of studying learning in animals and humans.
Prerequisite: Psychology 202 and Statistics 205. (May be co-requisite)

366. New title and description, as follows:

Experimental Psychology: Perception (3-3; 0-0)
Basic facts of sensory and perceptual phenomena, with focus on vision and hearing.
Prerequisite: Psychology 202 and Statistics 205. (May be co-requisite)

382. Renumber as Psychology 383; change title and description to read as follows:

Personality (3-0; 0-0) or (0-0; 3-0)
An introductory survey of the area of personality including a study of representative theoretical points of view, and research relevant to the major problems in this area.

430. Renumber as Psychology 431; change hours to (3-3; 0-0) or (0-0; 3-3).

500. Change description and hours to read as follows:

Psychology Proseminar (3s-0; 3s-0)
Unifying views of psychology.
Required of graduate students as directed.

546. Renumber as Psychology 547; change hours to (3-0; 0-0) or (0-0; 3-0).

C. Courses Cancelled

Psychology 460*, 472, 488*, 530, 542, 566, 568, 572, 589.

* - Cancellation of these courses applies to Edmonton only; they will be offered in Calgary.

(17) Department of Sociology

Anthropology

A. New Courses

375. Peoples and Cultures of Africa (3-0; 3-0)
Study of the native cultures with emphasis on the sub-Saharan part of the continent. Special attention will be given to present day trends of change.
Prerequisite: A course in Anthropology or consent of instructor.

402. North American Archeology (3-1; 3-1)
The peopling of North America and prehistoric development of culture as revealed by archeological data. Special attention will be given to the archeology of Canada.
Prerequisite: A course in Anthropology or consent of instructor.

420. Anthropology of Religion (3-0; 3-0)
A study of supernatural beliefs and practices in primitive and peasant cultures, including magic, shamanism, priesthoods, taboos and folk-beliefs. Special attention will be given to evolutionary, historical and functional theories of religion.
Prerequisite: A course in Anthropology or Sociology or consent of instructor.

B. Course Changes

202. Change title and hours to read: "Introductory Anthropology (3-0; 3-0)".

302. A new course description, as follows:

The nature of culture; its uniformities and varieties; comparative study of primitive cultures in terms of family, clan, political organization, economic systems, religion, art, folk lore and social customs; processes of cultural change.

370. Add "Prerequisite: A course in Anthropology or Sociology or consent of instructor".

395. Add "Prerequisite: A course in Anthropology or Classics 356 or consent of instructor".

Sociology

A. New Courses

393. Political Sociology (3-0; 3-0)
A study of the social basis of political institutions and practices, and of the impact of these institutions and practices on society.
Prerequisite: Sociology 202 or Political Science 200.

536. Seminar in Sociology of Knowledge (3-0; 3-0)

B. Course Changes

326. Change title and hours to read: "Criminology and Corrections (3-1; 3-1)".

18) Department of Zoology

A. New Courses

481. Practical Histology (0-0; 3-3)
Principles and practice of microscopy, tissue preparation techniques, micrometry and photomicrography. Principles of biological structure. Study of tissues.
Prerequisites: Zoology 300 and 350, Chemistry 350.

556. Helminthology (1-5; 1-5)
Taxonomy, morphology and ecology of the parasitic helminths.
Prerequisite: Zoology 452 or consent of department.

B. Course Changes

440. Add to prerequisite: "Chemistry 250 or 350".

471. Change prerequisite to read: "Zoology 300 or consent of department".

C. Courses Cancelled

Zoology 581.

(19) Summer Session Course in Biology - Edmonton

Biology 330. (10 - 12)
A general course in biological principles designed to assist prospective teachers of High School Biology 30, and open only to such teachers.
Not open to students with credit in Biology 341, Botany 201, 205 and Zoology 220, or Botany 202 and Zoology 225, or equivalent or senior courses in Botany or Zoology, and may not be taken with these courses.
Desirable preparation: High School Biology 20, 32, or Zoology 222.

Calendar Changes - Calgary

(1) Department of Botany

There was some inconsistency between the submission of the Standing Committee in Calgary and a separate communication received by the Department of Botany from Professor Prince in Calgary. Furthermore, Professor Brodie was not satisfied with either the changes passed by the Standing Committee or those submitted by Professor Prince. The Committee agreed to delete the Botany section of the Standing Committee's report.

(2) Department of Classics

A. New Courses

Latin 361. Selections from Livy and Tacitus (3-1s; 3-1s)
Prose composition.
Prerequisite: Latin 300.

Greek 361. Selections from Herodotus and Thucydides (3-1s; 3-1s)
Prose composition.
Prerequisite: Greek 300.

Classics 386. Roman History (3-0; 3-0)
From the Battle of Actium to the Fall of the Empire in the West. The organization of the Empire under Augustus and the causes of its breakdown.

B. Course Changes

Classics 352: Renumber as Classics 381.

Classics 350: Renumber as Classics 382.

Classics 353: Renumber as Classics 385.

(3) Department of English

A. New Courses

397. Studies in World Drama (3-0; 3-0)
A critical study of selected plays from various countries and periods.

(4) Department of Geography

A. New Courses

210. World Regional Geography (3-0; 3-0)
A systematic study of the natural and cultural regions of the world.
Note: This is a Division B course.

(5) Department of Geology

A. New Courses

308. Palaeozoology (3-0; 3-0)
Elements of physical and historical geology. Discussion of the structure, classification and evolution of the major animal groups from Precambrian times to recent. Emphasis is on fossil forms, particularl those found in Western Canada. Several fossil collecting trips to the Rocky Mountains will be made early in the first term.
No Prerequisite required. This is designed as a general interest course for Arts and Science, and Education students and is not to be taken by students in the Geology pattern.
Note: This is a Division C subject.

B. Course Changes

302. Renumber as Geology 309; change prerequisite to read: "Geology 201 or consent of instructor". Add note: "This is designed as a general interest course for Arts and Science and Education students, and is not to be taken by students in the Geology pattern."

(6) Department of History

A. New Courses

363. The Development of the American West (3-0; 3-0)

371. Canada up to Confederation (3-0; 3-0)

373. Canada since Confederation (3-0; 3-0)

409. Intellectual History of Europe in the 18th Century (3-0; 3-0)

431. Problems of Eastern European History (3-0; 3-0)
(Poland, Czechoslovakia and Hungary and their position between the great powers.)

459. British Imperial and Commonwealth Problems 1850 - 1949 (3-0; 3-0)

477. History of Canadian-American Relations (3-0; 3-0)

(7) Department of Mathematics

A. New Courses

111. Trigonometry (2-0; 0-0)
Trigonometric functions and identities. Solution of triangles.
Prerequisite: 70% standing in Mathematics 30 and 70% standing in the required courses of Grade XII or special permission of the Dean.
Note: This course cannot be taken for credit towards a degree.

217. Calculus (5-0; 5-0)
Functions. The derivative, differential and anti-differential. The integral and its applications. Fundamental Theorem. Differentiation and integration of elementary functions of one or more variables. Simple differential equations.
Prerequisite: Mathematics 30 and 31 of High School.
Note: This course is required of first year Honors students in Mathematics and Physics. Other students admitted only with the consent of the instructor.

Computing 251. Elements of Programming (1-2; 0-0) or (0-0; 1-2)
Programming of an electronic digital computer in machine language, symbolic language, and algorithmic language.
Prerequisite: consent of instructor.
Note: This course does not carry degree credit.

283. Algebra and Geometry (Honors) (3-0; 3-0)
Sets. Mathematical logic. Number systems. Co-ordinates. Mathematical induction. Binomial theorem. Remainder theorem. Lines and planes in analytic geometry. Vectors. Linear transformations and matrices. Groups of transformations of co-ordinates. Geometric invariants. Determinants. Conic sections. Principal axis theorems.
Prerequisite: Mathematics 30 and 31 of High School.
Note: This course is required of first year Honors students in Mathematics and Physics. Other students admitted only with the consent of the instructor.

Statistics 267. Numerical Mathematics, Statistics and Probability (3-2; 3-2)
Fixed-point and significant digit arithmetic. Round-off error differences of data and of elementary tabular functions. Use of mathematical tables. Difference and summation operators. Factorial polynomials. Fitting of equispaced data. Difference approximation to differential and integral operators. Simultaneous linear equations and method of solution. Matrices. Set theory of events. Probability measure. Finite Markov chains. Relative frequencies and probability. The binomial and Poisson distributions. The normal distribution. Elements of statistical inference.
Prerequisite: Mathematics 30 and 31 of High School.
Note: This course is required of first year Honors students in Mathematics. Other students admitted only with the consent of the instructor.

B. Course Changes

201. Renumber as 211.

270. Renumber as 281.

304. Renumber as 315.

306. Renumber as 317.

310. Renumber as 321.

330. Renumber as 341.

360. Renumber as 371.

404. Renumber as 415.

421. Renumber as 431.

422. Renumber as 433.

425. Renumber as 435.

430. Renumber as 441.

460. Renumber as 471; change prerequisite to read: "Mathematics 315, Mathematics 281 or Statistics 265 or equivalent".

Statistics Courses

205. Renumber as 215.

255. Renumber as 265.

(8) Department of Philosophy

A. New Courses

241. Introduction to Western Philosophy (3-1; 3-1)
The student meets and considers traditional problems of Western philosophy as they appear in selected philosophical classics. Emphasis is placed both on historical treatment of these problems and upon the student's ability to handle philosophical ideas independently. To this end lectures, discussions and tutorials form part of the student's training. This course is acceptable as a prerequisite wherever Philosophy 240 is.

261. Introduction to Logic and Semantics (3-0; 3-0)
This course aims at developing a sensitivity to the structure and use of arguments and language. Students are introduced to the techniques of modern symbolic logic and informal linguistic analysis as methods for evaluating beliefs and arguments. This course is acceptable as a prerequisite wherever Philosophy 260 is.

341. Ancient Philosophy (3-0; 3-0)
A study of the main writing of Ancient philosophy from Thales to Plotinus.

343. Medieval Philosophy (3-0; 3-0)
A study of representative philosophical writings from St. Augustine to Nicolas of Cusa. Emphasis is placed on the thought of St. Thomas Aquinas, William of Ockham and Duns Scotus.

345. Contemporary Philosophy (3-0; 3-0)
A discussion of the main currents of present-day philosophical thought as expressed in selected contemporary writings. Prerequisite: A previous course in philosophy or consent of instructor.

(9) Department of Physics

The Department of Physics in Calgary has proposed an entirely new Honors course which will involve a realignment of existing Physics courses in Calgary, and ten new courses. The Committee took note of the fact that the Committee on Honors has approved the new program, and agreed to approve the new courses required but with considerable reservations as to the feasibility of introducing a complete Honors program in Calgary at this particular juncture.

A. New Courses

243. Elements of Physics (3-1S-3; 3-1S-3)
Mechanics, heat, optics, electricity and magnetism, modern physics. The major emphasis is on mechanics and electricity and magnetism. Corequisite: Mathematics 217.
This course is required for pre-honours students in Physics and Mathematics. Other students may be admitted with the consent of the instructor.

303. Heat (2-0; 0-0)
Equations of state, real gases, critical phenomena, law of corresponding states, Joule-Kelvin effect, kinetic theory, Maxwell distribution, Laws of Thermodynamics, Carnot cycle, thermodynamic scale of temperature, entropy, topics from heat transfer and radiation.
Prerequisites: Physics 243 and Mathematics 217 or consent of department.
Corequisites: Mathematics 315 or 317.

305. Electricity and Magnetism (2-0; 2-0)
Vector formulation of electromagnetism, E. D. B. H. & J. Maxwell's equations, Poynting vector, electromagnetic waves. A.C. and D.C. circuit analysis including some simple active elements.
Prerequisites: Physics 243 and Mathematics 217.
Corequisites: Mathematics 315 or 317.
Credit will not be given for both Physics 340 and Physics 305.

351. Intermediate Laboratory (0-6; 0-6)
Experiments in mechanics, optics, heat and electricity.
This course cannot be taken separately.

361. Optics and Mechanics (3-0; 3-2S-0)
Geometric theory of optical instruments, simple wave theory of light and sound, statics, dynamics of a particle and of a rigid body.
Prerequisites: Physics 243 and Mathematics 217 or consent of department.
Corequisites: Mathematics 317 or 315.
Credit will not normally be given for both Mathematics 321 and Physics 361.

403. Thermodynamics and Statistical Mechanics (3-0; 3-0)
More advanced discussion of the laws of thermodynamics, Nernst Heat Theorem. Generalised state functions, transport phenomena, Law of Mass Action, Boltzmann, Bose-Einstein and Fermi-Dirac statistics, thermal radiation, irreversible processes.
Prerequisites: Physics 303, Physics 360, Mathematics 431 and 433 or Mathematics 415.

405. Electromagnetic Theory (3-0; 3-0)
Potential theory, Maxwell's equations, electromagnetic waves in continuous media transmission lines; selected topics in electromagnetism.
Prerequisites: Physics 305, or 340, Mathematics 415 or Mathematics 431 and 433.

409. Modern Physics (4-0; 4-0)
Special relativity, electrons and photons, Bohr model and the old quantum theory. Schroedinger's equation and simple applications, x-rays, radioactivity and nuclear structure, solid state physics, properties of crystals, electrons in solids, low temperature physics.
Prerequisites: Physics 360 and 305.
Prerequisite or Corequisite: Mathematics 415 or 431 and 433.

441. Advanced Mechanics (3-0; 3-0)
Central orbits, scattering theory, harmonic oscillator, normal modes of vibration, space motion of a rigid body. Relative motion; tops and gyroscopes. D'Alembert's principle, generalised coordinates, Lagrange's equations, Hamilton's principle.
Prerequisites: Mathematics 211 or 217 and Mathematics 321 or Physics 361.
Credit will not be given for both Mathematics 441 and Physics 441.

451. Senior Laboratory (1-6; 1-6)
Experiments in modern physics, more advanced experiments in electromagnetism and optics.
This course cannot be taken separately.

(10) Department of Political Economy - Political Science

A. New Courses

311. Governments of Europe (3-0; 3-0)
A study of the structure and function of selected governments of Continental Europe, including the government of the Soviet Union.

521. Government of Canada (Advanced) (3-0; 3-0)

(11) Department of Sociology

A. New Courses

391. Sociology of Occupations and Professions (3-0; 3-0)
Occupational recruitment, selection and induction; training and socialization; occupational mobility, job and career patterns; client-professional relationships; occupational and professional associations; inter-occupational relations; work in complex organizations; the professionalization of occupations; public attitudes and occupational stereotypes.
Prerequisite: Sociology 202 or consent of the instructor.

(12) Department of Zoology

A. New Courses

317. Advanced Genetics (0-0; 3-0)
A continuation of Zoology 315 designed primarily for students majoring in the biological sciences and/or intending graduate work in the biological sciences. Particular emphasis will be placed on microbial and biochemical genetics, the chemical structure of the genetic material, the mechanism of gene action, and statistical methods in genetics.
Prerequisites: Zoology 315 and Chemistry 250 or 350, or consent of the instructor.

342. Comparative Physiology (3-3; 3-3)
A course concerned with the study of animal functions. Topics to be discussed include: respiration, digestion, excretion, nerve and muscle physiology, reproduction, growth and the influence of environmental factors on animals. Students will be required to take part in tutorials and they will be expected to devote additional time to laboratory work.
Prerequisites: Zoology 300 or 350, Chemistry 250 or 350, or consent of instructor.

365. Studies in Animal Ecology (1S-3; 0-0) or (0-0; 1S-3)
Field and laboratory studies designed to demonstrate methods of analysis in animal ecology.
Prerequisites: Zoology 362.

371. Ethology (0-0; 3-0) or (3-0; 0-0)
An introduction to the study of behaviour in invertebrate and vertebrate animals.
Prerequisites: Zoology 220 or consent of instructor.

417. Population Genetics (0-0; 3-0) or (3-0; 0-0)
The genetic structure of populations and the operative factors in stability and change.
Prerequisites: Zoology 315 or Genetics 351, or consent of the instructor.

467. Advanced Animal Ecology (0-0; 3-0) or (3-0; 0-0)
Current problems and recent research in areas of particular significance. Topics will vary from year to year. May be repeated for credit. Topic for 1963-64: Dispersion, dispersal and the dynamics of animal populations.
Prerequisites: Zoology 362 or consent of instructor.

564. Special Problems in Ecology (3-0; 0-0) or (0-0; 3-0)
Guided readings on specific problems for Honor and Graduate students.

6. The meeting adjourned at 4:00 p.m., December 16th.

Douglas E. Smith
Chairman

Secretary

The twenty-fifth meeting of the Executive Committee of the Faculty of Arts and Science was held January 19, 1963, at 10.00 a.m. in the office of Dean Smith. Present were Dean Smith, Chairman; Dean Armstrong; Professors Elder, Gainer and Ross.

1. Minutes of Previous Meeting

The minutes of December 15th, 1962 were adopted as circulated.

2. Calendar Changes

The following new courses were considered and approved:

Edmonton

Physics 416. Introduction to Wave Mechanics and Theory of Solids (2-0;2-0)
The Schrodinger equation, quantum statistics, bonding forces, electron theory of solids, properties of metals and semi-conductors.
Prerequisite: Physics 340 or 380, Mathematics 303 or 304 or 306
Prerequisite or corequisite: Mathematics 404 or 407 or 421.

Summer Session

Biology 330. Principles of Biology (10 - 12)
A general course in biological principles designed to assist prospective teachers of High School Biology 30, and open only to such teachers.

Not open to students with credit in Biology 341, Botany 201, or 205, and Zoology 220, or Botany 202 and Zoology 225, or equivalent or senior courses in Botany or Zoology, and may not be taken with these courses.

Desirable preparation: High School Biology 20, 32, or Zoology 222.

Offered only at Edmonton.

Note: Approved in principle by Council, but referred back to the Executive Committee for rearrangement of prerequisites and "desirable preparation".

Calgary - Department of Botany

A. New Courses

372. Plant Geography (0-0; 3-0)
The earth's main vegetational types and the significance of their present day distribution. Emphasis will be placed on the vegetation of North America.
Prerequisite: Botany 271 or 201; or consent of instructor.

373. Algae, Lichens and Bryophytes (3-3; 3-3)
The morphology, classification, and evolution of Algae, Lichens and Bryophytes. Those species occurring in Alberta will be emphasized.
Prerequisite: Botany 271 or 201; or consent of instructor.

375. Lower Vascular Plants (3-3; 3-3)
Morphology, taxonomy, and evolution of the seedless vascular plants and Gymnosperms.
Prerequisite or corequisite: Botany 271 or 201, and 371 or 310; or consent of instructor.

472. Plant Ecology (3-0; 0-0)
Plants in relation to their environment. Conservation and forestry applications will be considered.
Prerequisite or corequisite: Botany 370 or 300; or consent of instructor.

B. Course Changes

271. Change in description:

Basic anatomy, physiology, heredity, and ecology of the flowering plants. A survey of the morphology, life-cycles, and evolution of the main groups of the Plant Kingdom.

370. Change in description:

Morphology, classification, and evolution of the flowering plants. Species concepts, principles of nomenclature, and related fields will be considered. Emphasis will be placed on those plants making up the local flora.
Prerequisite: Botany 271 or 201; or consent of instructor.

371. Change in title and description:

Plant Anatomy (3-3; 3-3)
Elements of anatomy of the higher vascular plants (Angiosperms with emphasis on the development of the root, stem leaf, and flower. Environmental control of plant morphogenesis. An introduction to plant microtechnique.
Prerequisite: Botany 271 or 201; or consent of instructor.

C. Course Deletions

Botany 330.

3. Petitions and Special Cases

Donald Murray Hamilton is a Special Student registered in a full program equivalent to the second year in the Sociology pattern; he hopes eventually to study theology. He is taking Greek 100 as an option and wishes to drop this course and substitute for it a second term half year course in Psychology.

As Mr. Hamilton is a special student, the Committee had no objection to him dropping Greek 100. However, his request for permission to enroll in a new course in the second term was denied.

Wayne Ducey was twice assigned to Category IV in the Faculty of Commerce; after some years he applied for admission to the Faculty of Arts and was informed that he would be required to demonstrate, by satisfactorily completing the equivalent of a full year's work in Summer Session and Evening Credit Program, that the causes of his previous failures have been overcome. In Summer Session, 1962, he registered in two courses, notwithstanding his being advised by the Assistant Dean to attempt only one, and attained a mark of 56 in Philosophy 240 and 44(F) in English 380. These results appeared to the Dean of Arts to be ample evidence that Mr. Ducey would be unable to attain the required average of 60% in the five courses, and accordingly he was informed that no further registration would be permitted. Mr. Ducey protested this ruling, claiming particularly that the failure in English was excusable on the grounds that his instructor in that course was unorthodox, misleading and frequently incapable of teaching. The Dean of Arts and the Head of the Department of English made a thorough investigation, found the allegations to be grossly exaggerated and established that Mr. Ducey's examinations in this course had been, if anything, generously marked. Mr. Ducey was so informed, and the previous ruling re-affirmed. Mr. Ducey reiterated his protest, and provided several paragraphs of detail, largely repetitious, with regard to the alleged inadequacy of the instructor. He added to his protest an inquiry as to the agency to which he should address an appeal. He was informed that this last communication would be regarded as a petition to Faculty Council.

After some discussion and inquiry, the Committee agreed with the Dean of Arts that Mr. Ducey's complaints were grossly exaggerated, his treatment had been eminently fair and there was very little likelihood of his successfully completing five courses with the required average of 60%. However, during the course of the investigation referred to above, it became evident that the instructor in question was inclined to intemperance and on at least one occasion had given public evidence of this inclination. On the other hand, the reaction of other students, the distribution of marks attained and the inquiries made by the Head of the Department all served to refute Mr. Ducey's allegation that the level of instructor in this course was unsatisfactory.

The Committee noted that the original arrangement with Mr. Ducey required that he satisfactorily complete the equivalent of a year's work; "satisfactorily" could only be interpreted in terms of the published standards for students repeating a year, i.e., an average of 60% without supplementals. It is possible, though not likely, that Mr. Ducey could achieve an average of 60% by achieving sufficiently high marks in the remaining three of the prescribed five courses.

It was agreed that Mr. Ducey should be informed that the Committee completely agreed with the Dean of Arts that Mr. Ducey's complaints concerning the instructor are grossly exaggerated and also that his prospects of successfully completing five courses with an average of 60% are exceedingly remote. However if, in the face of this carefully considered opinion, Mr. Ducey wishes to complete the originally stipulated five courses, he may be permitted to do so.

4. Proposed New Course in New Testament Studies

The Dean of Arts has received from Brother Prudent a proposal that a new course entitled "Recent Trends in New Testament Studies" be introduced in the 1963 Summer Session. As there appeared to be insufficient time to obtain the approval of Council before the publication of the Summer Session Announcement, Brother Prudent was informed that the matter would be considered by the Executive Committee at its February meeting with a view to considering presentation of the course in 1964. However, all copies of the Summer Session Announcement received in the Dean's office were accompanied by an insertedleaflet advertising what appears to be the proposed course but under the auspices of the Edmonton Separate School Board. Although no mention was made of University credit for this course, the course was described as "a summer course in sacred scripture at the University of Alberta in Edmonton" and the fact that the leaflet describing the course was inseted in the Summer Session Announcement would certainly support the inference that the University was in some way involved.

It was agreed that the matter would bear looking into and the Dean of Arts agreed to do this.

The meeting adjourned at 11.35 a.m.

Douglas E. Smith
Chairman

Secretary

The twenty-sixth meeting of the Executive Committee of the Faculty of Arts and Science was held February 16th, 1963, at 10 a.m. in the office of Dean Smith. Present were Dean Smith, Chairman; Dean Armstrong; Professor Elder, Gainer, Lorch and Trainor (alternate for Professor Ross).

1. Minutes of the Previous Meeting

The minutes of the meeting of January 19th, 1963, was adopted as circulated.

2. Petitions and Special Cases

Richard P. Marceau was informed that his petition for credit in French 32, taken at the University of Ottawa, would be considered again when his term marks were known. His term marks are good. However, since the matter was last dealt with by the Executive Committee, the Department of Modern Languages has made some further inquiries with a view to evaluating the course in terms of our own. It was agreed to await the department's report.

Mr. Arthur D. G. Yates started work towards a B.A. after B.Ed. in Summer Session 1950. He was informed that he would be required to take six senior courses in this faculty, though the particular courses were not stipulated. By the end of Summer Session 1956 he had completed four courses toward his degree and later, in 1962, he passed a fifth course. He wished to take Anthropology 302 in Summer Session 1963, but was informed his sixth course must be a science course, as to date he has but two of the three science courses required in a B.A. pattern. He has petitioned that the requirement for a third science course be waived on the grounds that he had not been told of this requirement until the time for taking his last course.

The Committee noted that the calendar statement of requirements for B.A. after B.Ed. includes the phrase "in conformity to one of the standard Arts and Science patterns", and all B.A. patterns require three science courses. Also, the merit in the requirement for science courses in B.A. programs does not depend on whether or not students are individually informed. Accordingly the petition was declined.

3. Proposed Course in New Testament Studies

Further to the minutes of the January 19th, 1963, meeting, Dean Smith reported that action has been taken to make it completely clear that the course entitled "Recent Trends in New Testament Studies", being offered this summer under the auspices of the Edmonton Separate School Board, will not be regarded as a university credit course. At this point, the only respect in which the university is involved in this course is that it will be offered on the University Campus. The question of whether it ever becomes a university course is still to be decided.

The Committee was informed by Dean Armstrong that an ad hoc committee of which he is a member, has been examining the proposal by the Senate that a Department of Religion be established on the campus. This committee will probably recommend an academic appointment in comparative religions, with no denominational ties, as an initial step, to deal with the matter more thoroughly. It would seem therefore, unwise to encourage the establishment of a new course in religion until the proposals of the ad hoc committee have been considered.

The committee agreed that the Dean of Arts should so inform Brother Prudent.

4. Listing of Psychology courses in Science Calendar

At its meeting February 4th, Council approved the inclusion in the Faculty of Science calendar of Psychology courses that can be considered "Science"courses, the Executive Committee to determine the courses which should be so listed. At the invitation of the Committee Professor Royce, Head of Psychology, attended this portion of the meeting and presented the following list of Psychology courses for inclusion in a Science section of the joint 1963-64 Arts and Science calendar:

Courses No.

360 - General Experimental Psychology
365 - Experiemntal Psychology - Learning
366 - Experimental Psychology - Perception
474 - Comparative Psychology
475 - Physiological Psychology

500 - Proseminar
504 - Conference Course in Psychology for Honors and Graduate Students
528 - Advanced Psychometric Theory
534 - Experimental Design
560 - Advanced Experimental Psychology
565 - Seminar in Learning Theory
570 - Drugs and Behavior
578 - Experimental Psychopathology
585 - Seminar in Theories of Perception
599 - Honor's Thesis
600 - Research Seminar
649 - Research
699 - Advanced Research

All other courses in Psychology, and also Psychology 500 and 504, will be listed in the Arts section of the joint calendar.

A member asked if these courses, when listed in the Science calendar, would become acceptable "Science options" in B.A. programs. It was agreed that they would be.

The listing proposed by Professor Royce was approved.

5. Non-Laboratory Science courses

The Director of Summer Session, in conjunction with a request that Genetics 352 be recognized as a suitable Science option for Arts and Education students, raised a question of the desirability of providing more non-laboratory science courses. He felt there was a place for courses "about" science, and perhaps concerned with the history and development of sciences, which might fulfill the requirement for general Education without obliging students who are simply not interested to engage in detailed laboratory exercises.

Conceding that there are a considerable number of courses in which laboratory periods are indispensible, members of the Committee were not convinced that this was entirely true in the case of every course in which a laboratory is now prescribed. A point of view was expressed that in some cases at least, the laboratory period is essentially supervised study, and with the same degree of validity could be incorporated into Arts courses. The question also arose as to whether prescribed laboratories in some courses might not be bordering on luxury, particularly in view of the space and financial strictures that exist. There are courses in which students appear to do just about as well in final examinations whether or not they attend laboratory periods.

Members of the Committee were agreed that it would be worthwhile to examine a number of courses, particularly junior courses, in which laboratories are prescribed, with a view to ensuring that valuable laboratory space and time is only assigned when it is essential. It was agreed to recommend this to Council.

With regard to the specific case of Genetics 352, it was agreed that the problem should not be dealt with in fragments and that the status of this particular course must await the outcome of the examination of the general question.

6. Requirements for B.A. and B.Sc. after B.Ed.

In the calendar statement, the requirements for degrees in Arts or Science, for holders of the B.Ed., are related to the patterns. New statements, adapting these requirements to the new general course program, have been prepared by the respective Deans, and require GFC approval in order that they may be applied to the programs of B.Ed. students now starting work towards the second degree. Such statements normally would be approved by Council and later by General Faculty Council. However, as students are registering now for Summer Session courses, particularly those in which quotas have been assigned, it is necessary that the offices of the

Deans of Arts and Science be able to provide authoritative advise as to programs. Accordingly, the Committee agreed to act on Council's behalf and approve the statements presented and forward them to General Faculty Council for endorsation. (For details of the statements, see Arts and Science Faculty Council minutes dated March 4th, 1963.)

Douglas E. Smith
Chairman

Secretary

The twenty-seventh meeting of the Executive Committee of the Faculty of Arts and Science was held March 16th, 1963, at 10 a.m. in the office of Dean Smith. Present were Dean Smith, Chairman; Professors Elder, Gainer, Lorch and Ross.

1. Minutes of Previous Meeting

The minutes of the February meeting were not presented; they will be dealt with at the next meeting of the Committee.

2. Calendar Changes

Through a misunderstanding, History 380 (The Far East) was cancelled in 1962; it was the intention of the History department to regard it as "not offered" in 1962-63. In order to get it in the 1963-64 calendar, which can be done by inserting it in the galley proofs, it is necessary to arrange for its re-approval now, without waiting for Faculty Council to meet. Accordingly, the Committee agreed to approve following course:

History 380. The Far East (3-0; 3-0)

and refer it direct to General Faculty Council.

3. Petitions and Special Cases

(Mrs.) Elizabeth Margaret Brown requires one course for her B.A. (History pattern); she has credit in four History and two Classics courses. As she is employed in a Social Welfare Agency, she feels that both she and her work would benefit from her taking a senior Sociology course to complete her requirements, and accordingly petitions that she be considered to have met the requirements of the History pattern, insofar as history courses are concerned.

The Committee, noting that the Department of History does not object to this arrangement, agreed to grant the petition.

Abraham J. Konrad, a second year Sociology student, wishes to register in two Summer Session courses notwithstanding his being registered in a six-course program in the regular session. He is a Mennonite minister, married and supporting a family of four, 37 years of age; he has a very good academic record. The registration he proposes will permit him to complete his B.A. this year, but will mean his presentation of eight courses within the span of one year. He wishes to proceed to the Mennonite Brethern Bible College in Winnipeg for an additional year of theological studies, and his petition appears to imply that he must complete his B.A. before doing this. He maintains that it would be difficult for him to return to this campus at a later date, with his family, to complete his degree.

The Committee saw little merit in requiring that Mr. Konrad defer the completion of his B.A. and return to the campus at some later date. On the other hand, it was not clear from his petition that he must complete his B.A. in order to enter theological college; perhaps some concession might be made by that institution, particularly as this university has made concessions to Mr. Konrad on two occasions. Dean Smith was asked to interview Mr. Konrad and establish whether or not the B.A. degree is required, this year, for entrance to the Mennonite Bible College.

Regardless of these circumstances, the Committee did not feel it could approve the presentation of eight courses in one year, in the face of a clear regulation that requires Faculty Council approval for more than five. Accordingly it was agreed that, subject to the interview referred to above, the petition should be referred to Council with a favourable recommendation and with the usual condition that academic performance in the preceding term must be satisfactory. In this particular case, it was agreed that "satisfactory performance" should be at the level of a 70% average.

John Morley MacDonald is a blind student in the second year of the Psychology pattern. He attained matriculation and six courses at

St. Patrick's College, apparently without taking any mathematics or science courses; an attempt at Mathematics 260, early this session, proved it to be beyond his ability. The Committee was asked to consider the extent to which he must conform to the science requirements of the general program.

As Mr. MacDonald has been blind since early childhood, it is obvious that there will be considerable difficulty both for himself and the instructor in his acquiring a substantial grasp of any science or mathematics course. His lack of arithmetical knowledge proved to be an insurmountable difficulty in Mathematics 260, and this would probably be true in almost any science or mathematics course. Also, it is typical of this type of course that extensive use is made of visual aids and diagrams, both of which would be lost on a student who is blind. Nevertheless, some appreciation of science is essential to a general education, and the Committee agreed that it would be in Mr. MacDonald's interests to go as far as he was able to in some science, provided a suitable course exists.

Both Professor Brodie and Professor Ross believe that Biology 341 might not be entirely beyond a blind student, though admittedly there would be considerable difficulty both for him and the instructors involved. The only other course that appeared to be worth exploring is Physical Science 341. (This question was discussed with Professor Newbound subsequently, and he is convinced that the lack of even the most rudimentary mathematics and the extensive use made of visual aids in Physical Science 341 would make it impossible for Mr. MacDonald to undertake this course.)

It was agreed that Mr. MacDonald should attempt one science course in his program, and that he should register in Biology 341 in 1963-64. If he is able to attain some grasp of the subject, he should be encouraged to write examinations and any reasonable mark, albeit a failing mark, should be accepted in his case. If, after making a conscientious effort, it is found that even Biology 341 is completely beyond him, the Committee will agree to waiving all science requirements for him.

Cyril A. Pilley is a regular army officer who, during his service, has completed four years of high school including marticulation, eight University courses at Carleton University and one course in Summer Session 1962 at this University. He is registered in two courses in the Evening Credit Program, and will take an additional course in Summer Session 1963. At that point he will require three additional courses to complete a B.A. program in Economics, and he wishes to do this before his retirement from the army, which will take place in June, 1964. He asks that the requirements for a year on intra-mural study be waived in his case.

The Committee agreed to grant this request.

Douglas E Smith
Chairman

Secretary

[illegible] [illegible] all relevant requirements for him.

[illegible] is a regular case of [illegible] one. During his service, has completed four years of high school including [illegible] eight University courses at Carleton University and one course in Summer Session 1961 at [illegible] University. He is registered in two courses by the Evening Credit Program, and will take an additional course in Summer Session 1963. At that point he will require three additional courses to complete a B.A. program in Economics, and he wishes to do them before his retirement from the army, which will take place in June, 1964. He asks that the requirements for a year of intramural study be waived in his case.

The Committee agreed to grant this request.

Chairman

Secretary